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This part of the installation guide provides step-by-step instructions for the Windows system preparation. This is necessary if you want to install BlueSpice afterwards.

Follow these chapters in the order listed. At the end of each chapter you will see a link to the next chapter.

Please also pay attention to the chapter "Introduction". It contains additional information about this manual.

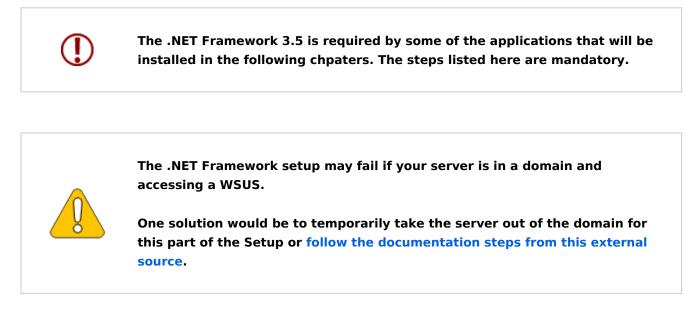
- Introduction
- Setting the system rights of the temporary Windows folder
- .NET Framework 3.5
- IIS-Webserver
- urlrewrite
- Microsoft Visual C++ Redistributable
- PHP Manager
- PHP
- MariaDB
- OpenJDK
- Apache Tomcat
- OpenSearch (from BlueSpice 4.4) / Elasticsearch (to BlueSpice 4.3)
- Python

# Setup:Installation Guide/System Preparation/Windows/.NET Framework 3.5

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#### Open the Server Manager and the roles Manager

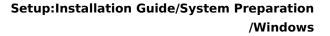
**Open** the Server Manager. Unless otherwise configured, it automatically starts when you log on to the server. You can also find it in the start menu with the search term "Server Manager".

🛼 Server Ma × WELCOME TO SERVER MANAGER Dashbo Local Server All Servers 1 Configure this local server File and Storage Services 2 Add roles and features 3 Add other servers to manage 4 Create a server group 5 Connect this server to cloud services Hide ROLES AND SERVER GROUPS File and Storage Services Local Se All Se Manageability € € Manageability Manageability Events Events Events Performance 1 Services 1 Services BPA results Performance Performance BPA results BPA results

**Click** "Manage" (1) in the top toolbar and then **click** "Add Roles and Features" (2) in the context menu:

You are now looking at the following view:

BlueSpice





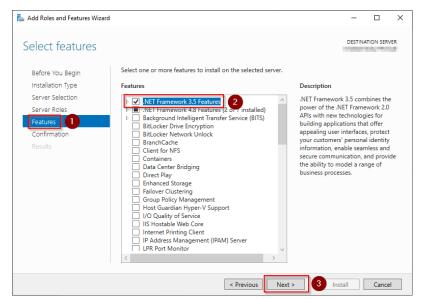
🚡 Server Manager				- 🗆 ×
Server Ma	anager • Dashboard		C     Add Roles and Features	1.s View Help
Dashboard	WELCOME TO SERVER MANAGER		Remove Roles and Features Add Servers	
All Servers	1 Cor	figure this local server	Create Server Group Server Manager Properties	
		add roles and features add other servers to manage		
		Treate a server group Connect this server to cloud services	S	Hide
	LEARN MORE ROLES AND SERVER GROUPS Roles: 1   Server groups: 1   Servers to	tal: 1		
	File and Storage 1 Services		All Servers 1	
	<ul> <li>Manageability</li> <li>Events</li> <li>Performance</li> <li>BPA results</li> </ul>	Manageability     Events     Services     Performance     BPA results     1/22/2022 8:24 AM	Manageability Events     Services Performance BPA results 1/22/2022 8:24 AM	

#### Installation of the framework in the Roles Manager

You are now in the Roles Manager (Window "Add Roles and Features Wizard").

Click "Next >" multiple times until you haver reached the section "Features" (1).

**Activate** the checkbox ".NET Framework 3.5-Funktionen" (2). After that, proceed to the next step (3):



**Activate** the checkbox "Restart the destination server automatically if required" (1) and **click** "Install" (2):



	DESTINATION SERV
-onfirm installa	ation selections
Do you need to specific	y an alternate source path? One or more installation selections are missing source files on the destinati
Before You Begin	To install the following roles, role services, or features on selected server, click Install.
Installation Type	Restart the destination server automatically if required
Server Selection	Optional features (such as administration tools) might be displayed on this page because they have
Server Roles	been selected automatically. If you do not want to install these optional features, click Previous to cl their check boxes.
Features	
Confirmation	.NET Framework 3.5 Features
Results	.NET Framework 3.5 (includes .NET 2.0 and 3.0)
	Export configuration settings

#### **Click** "Close" to finish the installation of the .net Framework:

📥 Add Roles and Features Wiz	ard	-		×
Installation prog	gress	DESTIN	ATION SER	VER
Before You Begin	View installation progress			
	Feature installation			
	Installation succeeded on			
	.NET Framework 3.5 Features			
	.NET Framework 3.5 (includes .NET 2.0 and 3.0)			
	You can close this wizard without interrupting running tasks. View task pr page again by clicking Notifications in the command bar, and then Task D		open this	5
	Export configuration settings			
	< Previous Next >	ose	Cance	el

#### Next step

.

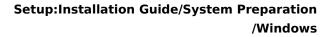
If you have successfully completed all of the above steps, proceed to the next step: IIS-Webserver

#### **Apache Tomcat on Windows**

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# Blue Spice MediaWiki

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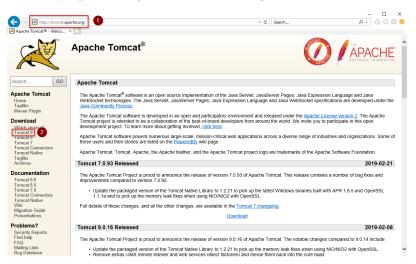
Apache Tomcat is required for the PDF export. The following steps are optional and only required if you want to use this service in your BlueSpice installation.



Operation of Apache Tomcat requires **OpenJDK**. If you have not installed it, follow the link above.

#### Download

Open the official download page (1) in your browser and go to the version 10 (2) download page.



Download the "32-bit/64-bit Windows Service Installer"

A ttps://tomcat.ap	ache.org/download-90.cgi 🗸 🚔 🖒	Search ,D +	- u x   A A ® ®
Apache Tomcat® - Apache >			
Taglibs Maven Plugin	Quick Navigation		^
Download Which version?	KEYS   9.0.16   Browse   Archives		
Tomcat 9 Tomcat 8	Release Integrity		
Tomcat 7 Tomcat Connectors Tomcat Native Taglibs Archives	You must yearily the integrity of the downloaded files. We provide OpenPGP signatures for the KEYS file which contains the OpenPGP keys of Torncat's Release Managers. We also download the file, you should calculate a checksum for your download, and make sure it is the	rovide SHA-512 checksums for every release file.	
Documentation	Mirrors		
Tomcat 9.0 Tomcat 8.5 Tomcat 7.0 Tomcat Connectors Tomcat Native	You are currently using http://www.gutscheine.org/mirror/apache/. If you encounter a pro mirrors are failing, there are backup mirrors (at the end of the mirrors list) that should be ava Other mirrors. [http://apache.lauf-forum at/		r. If all
Wiki Migration Guide Presentations	9.0.16		
Problems?	Please see the README file for packaging information. It explains what every distribution of	ontains.	
Security Reports Find help FAQ Mailing Lists Bug Database IRC	Binary Distributions    Core:		
Get Involved Overview Source code Buildbot Tools	<ul> <li>32-bit Windows zip (ogo, sha512)</li> <li>44-bit Windows zip (ogo, sha512)</li> <li>(32-bit 4-bit Windows Service Installer pogo, sha512)</li> <li>Fut of commentation:</li> <li>fut of comp, sha512)</li> <li>Deployment (comp, sha512)</li> </ul>		
Media	<ul> <li>zip (pgp, sha512)</li> <li>lar.gz (pgp, sha512)</li> </ul>		
Twitter YouTube Blog	<ul> <li>Embedded:</li> <li>tar.gz (ogp. sha512)</li> <li>zjp (pgp. sha512)</li> </ul>		~

Please note that the download on your Windows server with Internet Explorer only works if you have configured the Internet Explorer Advanced Security Settings in the Server Manager. Please refer to the technical





documentation from Microsoft.

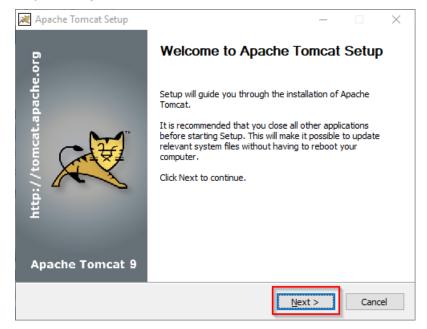


This guide uses version 9.0.16 of Apache Tomcat and is just an example of the latest version that you can download at the time of installation.

### Installing Apache Tomcat

Open the downloaded file "apache-tomcat-10.0.12.exe".

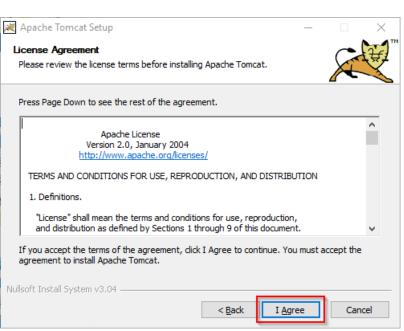
Start the installation by clicking "Next >":



Confirm the license agreement by clicking "I Agree":







Click "Next >":

減 Apache Tomcat Setup		– 🗆 X
Choose Components		THE T
Choose which features of Ap	ache Tomcat you want to install.	
Check the components you w install. Click Next to continue.	ant to install and uncheck the comp	ponents you don't want to
Select the type of install:	Normal ~	
Or, select the optional components you wish to install:	✓ ✓ Tomcat     ✓ ✓ Start Menu Items     ✓ ✓ Documentation     ✓ ✓ Manager     ✓ Host Manager     ✓ Examples	Description Position your mouse over a component to see its description.
Space required: 13.2 MB		
Nullsoft Install System v3.04 —		
	< <u>B</u> ack	Next > Cancel

Click "Next >" again:





🗮 Apache Tomcat Setup: Cor	nfiguration Op	tions	_	
Configuration Tomcat basic configuration.				
Server Shutdown Port		8005		
HTTP/1.1 Connector Port		8080		
Windows Service Name		Tomcat9		
Create shortcuts for all users				
Tomcat Administrator Login (optional)	User Name			]
(	Password			]
	Roles	manager-gui		]
Nullsoft Install System v3.04				
		< Back	Next >	Cancel

Select (1) the home directory of your OpenJDK Installation (2) and click "Next>" (3):

🗮 Apache Tomcat Setup		- 🗆 X
Choose Components Choose which features of Apac	che Tomcat you want to install.	
Check the components you wai install. Click Next to continue.	nt to install and uncheck the comp	oonents you don't want to
Select the type of install:	Normal 🗸	
Or, select the optional components you wish to install:	Tomcat     Start Menu Items     Occumentation     Manager     Host Manager     Examples	Description Position your mouse over a component to see its description.
Space required: 13.2 MB		
Nullsoft Install System v3.04		
	< <u>B</u> ack	Next > Cancel

Start the Tomcat Installation:





😹 Apache Tomcat Setup	_	
Choose Install Location Choose the folder in which to install Apache Tomcat.	4	
Setup will install Apache Tomcat in the following folder. To install in Browse and select another folder. Click Install to start the installat		er, dick
Destination Folder		
C:\Program Files\Apache Software Foundation\Tomcat 9.0	Brows	e
Space required: 13.2 MB Space available: 47.0 GB		
Nullsoft Install System v3.04		
< <u>B</u> ack	Install	Cancel

At the end of the installation, leave both preselected checkboxes (1) and finish the setup (2)

🗮 Apache Tomcat Setup	– – ×
0.1g	Completing Apache Tomcat Setup
http://tomcat.apache.org	Apache Tomcat has been installed on your computer.  Finish to close Setup.  Run Apache Tomcat  Show Readme
Apache Tomcat 9	2
	< Back Finish Cancel

#### **Configuring Apache Tomcat**

Change to the installation directory of Tomcat. By default, you can find it at C:\Program Files\Apache Software Foundation\Tomcat 9.0\conf.

Open the context.xml file in a text editor and replace the one-time line

<Context>

with

<Context mapperContextRootRedirectEnabled="true">



*C:\Program Files\Apache Software Foundation\Tomcat 9.0\conf\context.xml - Notepad++ [Administrator]	-	×
: Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?		
context uml 🖾		
1 <pre><pre>coxml version="1.0" encoding="UTF-8"?&gt;</pre></pre>		
2 C <br Licensed to the Apache Software Foundation (ASF) under one or more		
3 Licensed to the Apache Software Foundation (ASF) under one or more 4 contributor license agreements. See the NOTICE file distributed with		
contributor license agreements. See the Molitz rile distributed with 5 this work for additional information regarding copyright ownership.		
6 The ASF licenses this file to You under the Apache License, Version 2.0		
o Ine ASF incenses this file to fou under the Apache License, version 2.0 7 (the "License"); you may not use this file except in compliance with		
8 the License You may not use this file except in compliance with		
6 the License. You may obtain a copy of the License at		
0 http://www.abache.org/licenses/LICENSE-2.0		
10 http://www.apacie.org/itcenses/bicense_co		
12 Unless required by applicable law or agreed to in writing, software		
a onless required by applicable law of agreed to writing, software		
13 distributed under the License is distributed on an -ks 15 - balls, 14 WIRKOUT WARRANTEES OR CONDITIONS OF ANY KIND, either express or implied.		
a strategy and a s		
be the License for the Specific Language governing permissions and imitations under the License.		
10 Initiations under the License.		
1/>		
10 Context matterContextRootRedTretEnabled="true">		
<pre>is context mappercontextwookedirectinabled="true"] 20 20 20 20 20 20 20 20 20 20 20 20 20</pre>		
21 Default set of monitored resources. If one of these changes, the		
21 circ berault set or monitored resources. If one of these changes, the> 22 circ bebapplication will be reloaded>		
22 Cieweb application will be reloaded		
23 <watchedkesource wed-inf="" wed.xml="" wetchedkesource=""> 24 <watchedkesource tomcat-web.xml="" watchedkesource="" wed-inf=""></watchedkesource></watchedkesource>		
<pre>25 &lt;{WatchedResource&gt;\${catalina.base}/conf/web.xml</pre>		
26 27 Uncomment this to disable session persistence across Tomcat restarts		
29 <manager pathname=""></manager>		
30>		
31 L		
32		

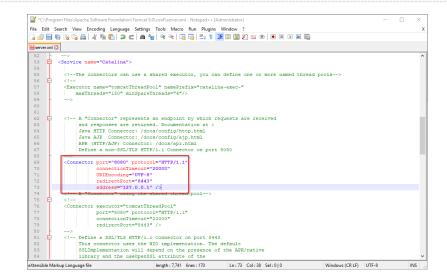
Save and close the file.

In the same directory, open the file server.xml in a text editor and make sure that the complete block

```
<Connector port="8080" protocol="HTTP/1.1"
... />
```

looks like this:

```
<Connector port="8080" protocol="HTTP/1.1"
connectionTimeout="20000"
URIEncoding="UTF-8"
redirectPort="8443"
address="127.0.0.1" />
```



Save and close the file.

Find the entry "Configure Tomcat" in the start menu and open it:



≡	Recently added	Windows Server		
	Configure Tomcat			
	Monitor Tomcat		Σ	2
	HeidiSQL	Server Manager	Windows PowerShell	Windows PowerShell ISE
	Expand $\sim$			
	#	. <b>f</b>	<b>1</b>	
	7-Zip New	Windows Administrativ	Task Manager	Control Panel
	A		_	
	Apache Tomcat 9.0 Tomcat9	Remote	0	
	Configure Tomcat New	Desktop	Event Viewer	File Explorer
	Monitor Tomcat New			
8	Tomcat 9.0 Program Directory			
Ľ	Tomcat Documentation			
	Tomcat Home Page			
2	Tomcat Manager			
ŝ	<b>Welcome</b>			
Ф	F			
0	Firefox			

Set "Startup type" to "Automatic" (1) and start Tomcat (2). Then exit the configuration console (3):

General     Log On     Logging     Java     Startup     Shutdown       Service Name:     Tomcat9       Display name:     Apache Tomcat 9.0 Tomcat9
Display name: Apache Tomcat 9.0 Tomcat9
Description: Apache Tomcat 9.0.16 Server - https://tomcat.apache
Path to executable:
"C:\Program Files\Apache Software Foundation\Tomcat 9.0\bin\Tomcat9.
Startup type: Automatic
Service Status: Stopped
Start 2 pp Pause Restart
OK 3 Cel Apply



#### Reviewing the installation

To check if Tomcat is working correctly, open the address http://localhost:8080/ in a browser on the server.

You should now see the homepage of the Tomcat server:

Inttp://localhost:8080/		C Search O	· ☆☆☺
Apache Tomcat/9.0.16 × 📑			
Home Documentation Configuration	Examples Wiki Mailing Lists	Find He	lp ^
Apache Tomcat/9.0.16	APACHE SOFTWARE FOUNDATION		-
If you're seeing th	is, you've successfully installed Tomca	at. Congratulations!	
Recommended Re	ading:	Server Status	
Security Considerat		Manager App	1
Manager Applicatio	<u>n How-To</u> Replication How-To	Host Manager	1
			<b>/</b>
Developer Quick Start			
Tomcat Setup Realms & A	AAA Examples	Servlet Specifications	
First Web Application JDBC Data	Sources	Tomcat Versions	
Managing Tomcat	Documentation	Getting Help	
For security, access to the manager webapp is restricted. Users are defined in:	Tomcat 9.0 Documentation	FAQ and Mailing Lists	
	Tomcat 9.0 Configuration	The following mailing lists are available:	
<pre>\$CATALINA_HOME/conf/tomcat-users.xml</pre>	Tomcat Wiki	tomcat-announce Important announcements, releases, security	
In Torncat 9.0 access to the manager	Find additional important configuration	vulnerability notifications. (Low volume).	
application is split between different users. Read more	information in:	tomcat-users User support and discussion	
	\$CATALINA_HOME/RUNNING.txt	taglibs-user	
Release Notes	Developers may be interested in:	User support and discussion for Apache Taglibs	
Changelog	Tomcat 9.0 Bug Database	tomcat-dev Development mailing list, including commit	~
Migration Cuido			

#### Installing the web apps

[[File:{{{file}}}Please unzip the installed BlueSpice folder and move the subfolder to C:[center]]\bluespice\var\www. Rename the folder to "w".

After the successful installation of BlueSpice, please follow the next steps to install the web services and activate the respective BlueSpice extension:

• PDF-Export

#### Next step

If you have completed all steps successfully, you can delete the previously downloaded "apache-tomcat-10.0.11.exe" file from your hard drive and continue to the next step " Elasticsearch".

# Setup:Installation Guide/System Preparation/Windows /Elasticsearch

Elasticsearch is available up to BlueSpice 4.3. Newer versions of BlueSpice 4 support OpenSearch.

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Blue Spice MediaWiki

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Elasticsearch is a prerequisite for running Advanced Search. The steps listed here are optional and only required if you plan to use them in your BlueSpice installation.



To run Elasticsearch, OpenJDK is required. If you have not installed it, install it now.

# Download



The content of this section refers to external sources and is current at the time of writing this documentation. We cannot guarantee how long these sources will remain unchanged. Please let us know if you notice any discrepancies to the information provided here.

BlueSpice ist derzeit mit Elasticsearch 6.x ab Version 6.8.21 kompatibel. Elasticsearch > 6.8.x wird derzeit nicht unterstützt.

Die jeweils aktuelle Version können Sie dieser Liste entnehmen. Daraus ergibt sich folgender direkter Download-Link: https://artifacts.elastic.co/downloads/elasticsearch/elasticsearch/elasticsearch/elasticsearch/elasticsearch/elasticsearch/elasticsearch-6.8.23.zip .

Folgen Sie dabei den Download-Anweisungen Ihres Browsers.



In the following, the Elasticsearch version 6.8.23 is used and only serves as an example for the latest version of the 6.x version series, which you can download at the time of your installation.

# Unpacking the ZIP archive

**Unpack** the ZIP archive that you have just downloaded in a Archiv in a suited system path of your hard drive.

This documentation assumes the folder structure recommended by us. For





this reason, Elasticsearch is unpacked at this point in the folder C: \bluespice\bin\elasticsearch-6.8.23. If you have individual wishes, adjust these paths according to your own understanding.

#### Installing the plugin ingest-attachment

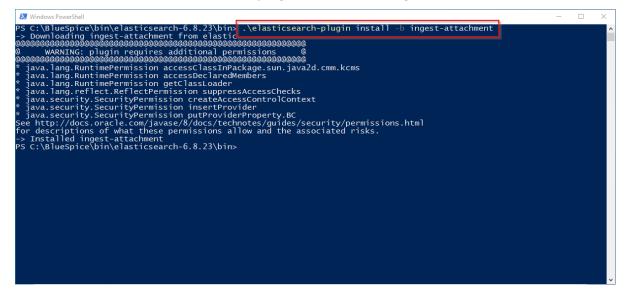
Change to the directory "C:\bluespice\bin\elasticsearch-6.8.23\bin" (1).

**Right-click** on a free area of the Explorer window with the Shift-key pressed.

Click "Open PowerShell window here" (2):

> • 🛧 🔒 -	This PC $\rightarrow$ Local Disk (C:) $\rightarrow$ BlueSpice $\rightarrow$ bin	> elasticsearch-6.8.23 → bin		5		
Quick access	Name ^	Date modified	Type Siz	te		
V QUICK access	💿 elasticsearch-cli	1/6/2022 9:29 PM	Windows Batch File	1 KB		
💻 This PC	elasticsearch-croneval	1/6/2022 9:34 PM	File	1 KB		
🗊 3D Objects	lasticsearch-croneval	1/6/2022 9:34 PM	Windows Batch File	1 KB		
Desktop	elasticsearch-env	1/6/2022 9:29 PM	File	2.60		
Documents	lasticsearch-env	1/6/2022 9:29 PM	Wine View		>	
Downloads	elasticsearch-keystore	1/6/2022 9:29 PM	File Sort by		>	
•	elasticsearch-keystore	1/6/2022 9:29 PM	Wind Group by		>	
Music	lasticsearch-migrate	1/6/2022 9:34 PM	File Refresh			
Pictures	elasticsearch-migrate	1/6/2022 9:34 PM	Wind Customize thi	s folder		
📑 Videos	elasticsearch-plugin	1/6/2022 9:29 PM	File Paste			
🏪 Local Disk (C:)	elasticsearch-plugin	1/6/2022 9:29 PM	Wind Paste Paste shortcu			
🔿 Network	elasticsearch-saml-metadata	1/6/2022 9:34 PM	File	1	611 T	
- NELWOIK	💿 elasticsearch-saml-metadata	1/6/2022 9:34 PM	Wine Undo Move		Ctrl+Z	
	elasticsearch-service	1/6/2022 9:29 PM	Wind Open PowerS	hell windov	where 2	
	b elasticsearch-service-mgr	1/6/2022 9:29 PM	Appl Give access to		>	
	b elasticsearch-service-x64	1/6/2022 9:29 PM	Appl		>	
	elasticsearch-setup-passwords	1/6/2022 9:34 PM	File			
	elasticsearch-setup-passwords	1/6/2022 9:34 PM	Wine Properties			
	elasticsearch-shard	1/6/2022 9:29 PM	File	1 KB		
	elasticsearch-shard	1/6/2022 9:29 PM 1/6/2022 9:34 PM	Windows Batch File File	1 KB 1 KB		

**Execute** the command ". \elasticsearch-plugin.bat install -b ingest-attachment":

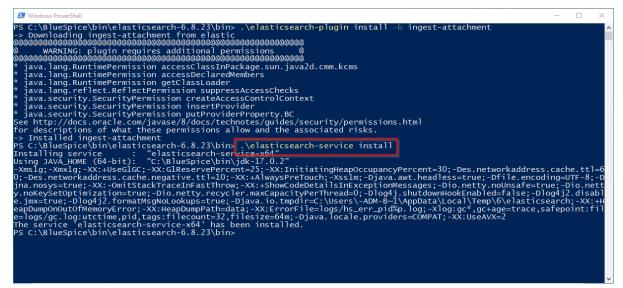




If your server does not have an active internet connection, then download the plug-in ingest-attachment as zip archive and install it, as documented directly by the manufacturer.

## Installing the Elasticsearch service

Run the "elasticsearch-service.bat install" command and wait for the process to complete:



### Configuring and starting the Elasticsearch service

**Press** the key combination Windows+R.

Enter "services.msc" (1) in the dialog window and click "OK" (2):

🖅 Run	×
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
<u>O</u> pen:	services.msc 1 ~
	2 OK Cancel <u>B</u> rowse

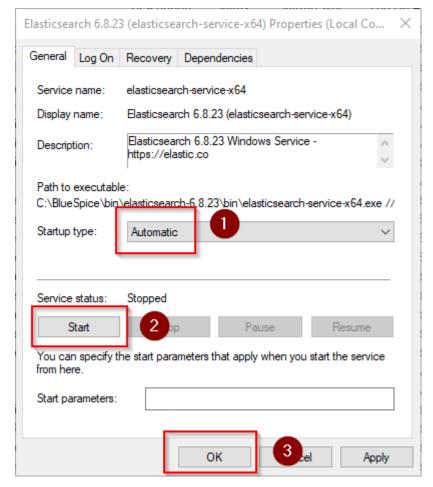
**Search** for the service "Elasticsearch 6.8.23" and open it with a double-click:

Setup:Installation	Guide/System	Preparation
		/Windows

ile Action View	Help							$\times$
• 🔿 🔲 🙆 🖥								
	🛓 🛛 📷 🛛 🖉 🖬 🖬 🖬							 
Services (Ebeal)	Q Services (Local)	^		1	1	1 1		
	Select an item to view its description.	Name	Description	Status	Startup Type	Log On As		
		DeviceAssociationBroker_f2	Enables app		Manual	Local Syste		
		🍓 DevicePicker_f282f82	This user ser		Disabled	Local Syste		
		DevicesFlow_f282f82	Allows Con		Manual	Local Syste		
		🧟 DevQuery Background Disc	Enables app		Manual (Trig	Local Syste		
		🍓 DHCP Client	Registers an	Running	Automatic	Local Service		
		🍓 Diagnostic Policy Service	The Diagno	Running	Automatic (	Local Service		
		🍓 Diagnostic Service Host	The Diagno		Manual	Local Service		
		🆏 Diagnostic System Host	The Diagno		Manual	Local Syste		
		🍓 Display Policy Service	Manages th	Running	Automatic (	Local Service		
		🌼 Distributed Link Tracking Cli	Maintains li	Running	Automatic	Local Syste		
		🖏 Distributed Transaction Coo	Coordinates	Running	Automatic (	Network S		
		🖏 DNS Client	The DNS Cli	Running	Automatic (T	Network S		
		Downloaded Maps Manager	Windows se		Disabled	Network S		
		🖏 Elasticsearch 6.8.23 (elastics	Elasticsearc		Manual	Local Syste		
		Embedded Mode	The Embed		Manual (Trig	Local Syste		
		🆏 Encrypting File System (EFS)	Provides th		Manual (Trig	Local Syste		
		🌼 Enterprise App Managemen	Enables ent		Manual	Local Syste		
		Attensible Authentication P	The Extensi		Manual	Local Syste		
		Function Discovery Provide	The FDPHO		Manual	Local Service		
		Resourc	Publishes th		Manual (Trig	Local Service		
		🧠 Geolocation Service	This service		Disabled	Local Syste		
		GraphicsPerfSvc	Graphics pe		Disabled	Local Syste		
		🖏 Group Policy Client	The service i	Running	Automatic (T	Local Syste		
		🖏 Human Interface Device Ser	Activates an		Manual (Trig	Local Syste		
		AV Host Service	Provides an		Manual (Trig	Local Syste		
		🍓 Hyper-V Data Exchange Ser	Provides a		Manual (Trig	Local Syste		
		Apper-V Guest Service Inter	Provides an		Manual (Trig	Local Syste		
		Hyper-V Guest Shutdown S			Manual (Trig	Local Syste		
	Extended Standard							-

Select the startup type "Automatic" (1) and start the service (2).

**Click** "OK" (3) to close the window after the service is started:



BlueSpice



#### Next step

If you have successfully completed all of the above steps, proceed to the next step: Python.

# Setup:Installation Guide/System Preparation/Windows/IIS-Webserver

#### Contents

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BlueSpice

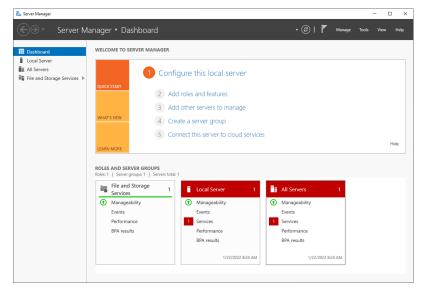
The web server delivers your BlueSpice installation to the users' browsers. Without a web server, BlueSpice cannot be used. The steps listed here are required.

#### Introduction

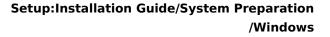
We recommend to use the most system-optimized software possible for a live operation of BlueSpice both under Linux and under Windows. For this reason, the documentation of an installation of Apache (XAMP) under Windows is omitted. This chapter lists the steps that are necessary to install the Microsoft IIS Web Server service on Windows Server >= 2016.

#### Open the Server Manager and the Roles Manager

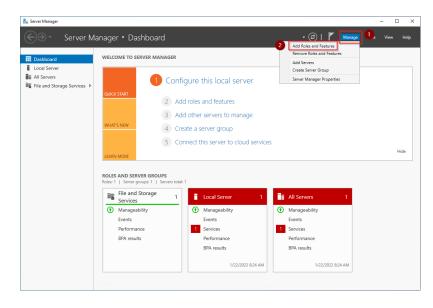
**Open** the Server Manager (like in the previous step). Unless otherwise configured, it starts automatically as soon as you log in to the server. Otherwise, you will find it in the start menu under the search term "Server Manager". You are now looking at the following view:



Click "Manage" (1) and then click "Add Roles and Features" (2):



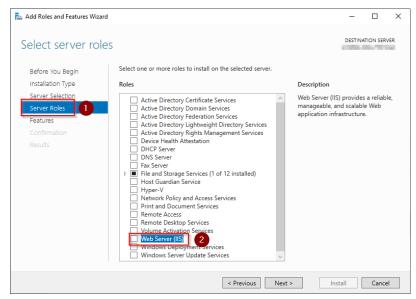




#### Installation of IIS in the Roles Manager

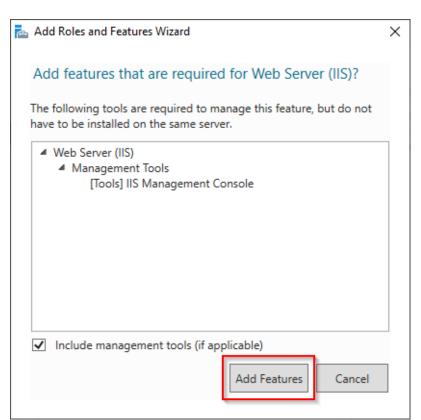
Sie befinden sich jetzt im Roles manager.

**Click** "Next >" until you reach the "Server Roles" area (1). There, you **activate** the role "Web Server (IIS)" (2):



Click "Add Features" in the resulting pop-up window:





#### Click "Next >":

📥 Add Roles and Features Wizard				-		×
Add Roles and Features Wizard Select server roles Before You Begin Installation Type Server Selection Server Roles Features Web Server Role (IIS) Role Services Confirmation Results	Select one or more roles to install on the selected server. Roles  Active Directory Certificate Services Active Directory Domain Services Active Directory Pideration Services Active Directory Rights Management Services Device Health Attestation DHCP Server DNS Server Fax Server DNS Server Fax Server Fax Server Fax Server PIF and Storage Services (1 of 12 installed) Host Guardian Service Host Guardian Services Frint and Document Services Remote Access Remote Access	^	Description Web Server (II manageable, a application inf	S) provides	e Web	/ER
	Remote Desktop Services  Volume Activation Services  Windows Deployment Services  Windows Server Update Services	v	:> In	stall	Cance	I

You are now in the section "Features".

**Click** "Next >":



Select features         Before You Begin         Installation Type         Server Selection         Server Roles         Peatures         Description         Provides Shielded VM u         Background Intelligent Transfer Service (BITS)         BitLocker Drive Encryption         BitLocker Drive Encryption         BitLocker Drive Encryption         BitLocker Drive Encryption         Data Center Bridging         Direct Play         Enhanced Storage         Failover Clustering         Group Policy Management         Host Guardian Hyper-V Support         ID Yougality of Service         ID Stocker Vere		
Select features         Before You Begin         Installation Type         Server Selection         Server Roles         Peatures         Description         Provides Shielded VM u         Peatures         Web Server Role (IIS)         Role Services         Confirmation         Results         Data Center Bridging         Distlocker Drive Management         Hot Guardian Hyper-V Support         I/ OQuality of Service		$\times$
Before You Begin     Features     Description       Installation Type     Features     Provides Shielded VM u       Server Roles <ul> <li>MET Framework 3.5 Features (2 of 7 installed)</li> <li>Background Intelligent Transfer Service (BITS)</li> <li>BitLocker Drive Encryption</li> <li>BitLocker Drive Incryption</li> <li>BitLocker NFS</li> <li>Containers</li> <li>Containers</li> <li>Direct Play</li> <li>Enhanced Storage</li> <li>Failover Clustering</li> <li>Group Policy Management</li> <li>Hot Guardian Hyper-V Support</li> <li>I/ VO Quality of Service</li> <li>IIS Hotsble Web Core</li> <li>Description</li> <li>Provides Shielded VM u</li> <li>Provides Shielded VM u</li> <li>Provides Shielded VM u</li> <li>are used by Fabric Management</li> <li>Group Policy Management</li> <li>Hot Guardian Hyper-V Support</li> <li>I/ VO Quality of Service</li> <li>IIS Hotsble Web Core</li> </ul>	TION SERV	/ER
Server Selection         Server Selection         Server Roles <ul> <li>INET Framework 3.5 Features</li> <li>INET Framework 4.8 Features (2 of 7 installed)</li> <li>Background Intelligent Transfer Service (BITS)</li> <li>BitLocker Drive Encryption</li> <li>BitLocker Network Unlock</li> <li>BranchCache</li> <li>Confirmation</li> <li>Containers</li> <li>Direct Play</li> <li>Enhanced Storage</li> <li>Failover Clustering</li> <li>Group Policy Management</li> <li>Hot Guardian Hyper-V Support</li> <li>I/ VO Quality of Service</li> <li>IIS Hotsble Web Core</li> </ul> Provides Shielded VM u		
Server Roles <ul> <li>MC Transwork 3.5 Features</li> <li>Arto Transverk 4.8 Features<td></td><td></td></li></ul>		
Jarren Roles       P       Background Intelligent Transfer Service (BITS)       solutions and should be the Fabric Management         Web Server Role (IIS)       BitLocker Drive Encryption       BitLocker Network Unlock       the Fabric Management         Role Services       Containers       Data Center Bridging       the Fabric Management         Results       Data Center Bridging       Direct Play       Faharced Storage       Faharced Storage         Faharced Storage       Faharced Storage       Faharced Storage       Faibover Clustering       Group Policy Management         Host Guardian Hyper-V Support       I/O Quality of Service       IIS Hostable Web Core       Solutions		it
Web Server Role (IIS)       BitLocker Drive Encryption       Web Server Role (IIS)         BitLocker Drive Encryption       BitLocker Drive Encryption       Web Server Role (IIS)         Role Services       Dittocker Network Unlock       BranchCache         Confirmation       Containers       Containers         Results       Data Center Bridging       Direct Play         Enhanced Storage       Failover Clustering       Group Policy Management         Host Guardian Hyper-V Support       I/O Quality of Service       IIS Hostable Web Core	installed	on
Role Services       BranchCache         Confirmation       Cintainers         Results       Data Center Bridging         Direct Play       Enhanced Storage         Failover Clustering       Group Policy Management         Host Guardian Hyper-V Support       I/O Quality of Service         IIS Hostable Web Core       IIS Hostable Web Core	server.	
Confirmation Containers Results Direct Play Failover Clusteria Group Policy Management Group Policy Management Host Guardian Hyper-V Support V/O Quality of Service II IS Hostable Web Core		
Enhanced Storage     Failover Clustering     Group Policy Management     Host Guardian Hyper-V Support     I/O Quality of Service     IIS Hostable Web Core		
Group Policy Management Host Guardian Hyper-V Support I/O Quality of Service IIS Hostable Web Core		
Host Guardian Hyper-V Support     I/O Quality of Service     IIS Hostable Web Core		
☐ I/O Quality of Service ☐ IIS Hostable Web Core		
Internet Printing Client IP Address Management (IPAM) Server		
LPR Port Monitor		
< >>		
< Previous Next > Install	Cance	9

You are now in the section "Web Server Role (IIS)".

#### Click "Next>":

📥 Add Roles and Features Wizard		-		×
Web Server Role	(IIS)	DESTINA	ATION SERV	/ER
Before You Begin Installation Type Server Selection Server Roles Features Web Server Role (IIS) Role Services Confirmation Results	Web servers are computers that let you share information over the Internet, or th extranets. The Web Server role includes Internet Information Services (IIS) 10.0 wi diagnostic and administration, a unified Web platform that integrates IIS 10.0, AS Communication Foundation. • The default installation for the Web Server (IIS) role includes the installation of enable you to serve static content, make minor customizations (such as default errors), monitor and log server activity, and configure static content compressi	th enhanc P.NET, and role servic documer	ed securi d Windov	ty, vs
	More information about Web Server IIS			
	< Previous Next >	stall	Cance	!

You are now in the section "Role services".

**Activate** the option "Windows-Authentication" (2) under "Security" (1) and the option "CGI" (4) under "Application development" (3).

**Click** "Next >" (5):



📥 Add Roles and Features Wiza	rd	- 🗆 X
Select role servio	ces	DESTINATION SERVER
Before You Begin	Select the role services to install for Web Server (IIS)	
Installation Type	Role services	Description
Server Selection		Default Document lets you configure
Server Roles	Security     Request Filtering	a default file for the Web server to
Features	Basic Authentication     Centralized SSL Certificate Support	return when users do not specify a file in a request URL. Default
Web Server Role (IIS)	Client Certificate Mapping Authentication	documents make it easier and more
Role Services	<ul> <li>Digest Authentication</li> <li>IIS Client Certificate Mapping Authenticatic</li> </ul>	convenient for users to reach your Web site.
Confirmation	IP and Domain Restrictions	
Results	VIRL Authorization	
	Windows Authentication     Z     Application Development	
	.NET Extensibility 3.5	
	Application Initialization	
	ASP ASP.NET 3.5	
	CGI 4	
	< > >	
		а 
	< Previous Nex	t > 5 Install Cancel

You are now in the "Confirmation" section.

**Activate** the option "Restart the destination server automatically if requred" (1) and **click** "Install" (2):

ections Il the following roles, role services, or features on selected server, click Install. start the destination server automatically if required features (such as administration tools) might be dispayed on this page becau lected automatically. If you do not want to install these optional features, click leck boxes. ierver (IIS) lanagement Tools IIS Management Console		ave
start the destination server automatically if required al features (such as administration tools) might be displayed on this page becau elected automatically. If you do not want to install these optional features, click l eck boxes.		
al features (such as administration tools) might be displayed on this page becau elected automatically. If you do not want to install these optional features, click i eck boxes. erver (IIS) Management Tools		
elected automatically. If you do not want to install these optional features, click eck boxes. erver (IIS) fanagement Tools		
eek boxes. server (IIS) Aanagement Tools	Previous t	o clear
lanagement Tools		^
lanagement Tools		Â
5		
CGI		
Common HTTP Features		
Default Document		
Directory Browsing		
HTTP Errors		
		~
configuration settings ( an alternate source path		
	Common HTTP Features Default Document Directory Browsing HTTP Errors	Application Development CGI Common HTTP Features Default Document Directory Browsing HTTP Errors Configuration settings ran alternate source path

**Click** "Close" once the installation has been completed.



📥 Add Roles and Features Wizar	d	-		×
Installation prog	ress	DESTINA	ATION SER	VER
	View installation progress			
	Feature installation			
		•		
	Installation succeeded on			
	Web Server (IIS)			^
	Management Tools			
	IIS Management Console			
	Web Server			
Results	Application Development CGI			
	Common HTTP Features			
	Default Document			
	Directory Browsing HTTP Errors			
	Static Content			~
	You can close this wizard without interrupting running tasks. View task pr page again by clicking Notifications in the command bar, and then Task I Export configuration settings		open this	;
	< Previous Next >	lose	Cance	el

With the successful completion of all these steps, the IIS web server is now installed. Check the functionality by starting Internet Explorer on the server and calling the URL http://localhost/. If installed correctly, you will see the welcome page of the IIS Web server:



#### Next step

If you have successfully completed all of the above steps, proceed to the next step: urlrewrite.

# Setup:Installation Guide/System Preparation/Windows /Introduction

This documentation is as detailed as possible and illustrated with screenshots. It covers the recommended basic system configuration. Nevertheless, we assume that you already have previous knowledge of the installation and operation of Windows Server systems.



The prerequisite is an already installed Windows server starting at version 2016 without any additional software already installed.

In this documentation, Windows Server 2022 was used. With different versions, it is possible that you will notice slight differences in the installation interface.

The documentation also includes clearly marked infoboxes that inform you about whether particular installation steps are necessary and that provide any further information.

First start with setting the system rights of the temporary Windows folder.

## **MariaDB on Windows**

#### Contents

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BlueSpice stores your content in a database for which you need to install a corresponding server. The steps listed here are required.



Alternatively, you can also use MySQL at this point, but we recommend the MariaDB database server described as below.

#### Download



The content of this section refers to external sources and is current at the time of writing this documentation. We cannot guarantee how long these sources will remain unchanged. Please let us know if you notice any discrepancies to the information provided here.

**Open** the official download page (1) in your browser. If not everything is already filled out correctly, select the latest version of MariaDB (1), the Windows operating system (2), the architecture  $x86_{64}$  (3) and the MSI package (4).

MariaDB	Download Documentation Contribute Server Fest Events Sponsor Blog Planet MariaDB About	(f) 🎔 (in) 🍲 🖻
Foundation	Latest MariaDB releases 10.8.2 (RC), 10.7.3, 10.6.7, 10.5.15, 10.4.24, 10.3.34, 10.2.43. Vote on your current version.	Search
MariaDB Foundation SUBSCRIBE to our YouTube channel	MariaDB Server is one of the world's most popular open source relational databases and is available in the standard repositories of all major Linux distributions. Look for the package mariadb-server using the package manager of your operating system. Alternatively you can use the following resources.	
	MariaDB Server MariaDB Repositories Connectors	
Download MariaDB Server REST API		
Release Schedule	This is a short term release with support lasting one year only. For production use we suggest the 10.6 release series.	
Reporting Bugs	MariaDR Server Version	
View all releases for:	MariaDB Server 10.7.3	
MariaDB Server MariaDB Galera	Display older releases:	
Connector/C	Operating System	
Connector/J Connector/ODBC	Windows 2	
Connector/Python	Architecture	
Connector/Node.js	x86_64 3	
	Package Type	
	MSI Package 4	
	6 Download Mirror	
	Release date: 2022-02-13 File name: mariado-10.7.3-winx64.msi	

**Click** on "Download" (5) and follow the further download instructions.



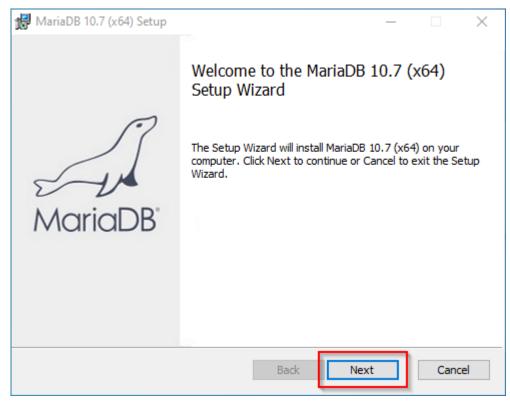


Im Folgenden wird die MariaDB-Version 10.7.3 verwendet und dient nur beispielhaft für die aktuellste Version 10.7.x, die Sie zum Zeitpunkt Ihrer Installation herunterladen können.

#### Installation

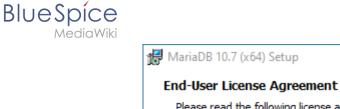
**Open** the MSI file that you have just downloaded.

**Click** "Next" to start the installation:



**Confirm** the dieLicense Agreement (1) and **click** "Next" (2):

 $\times$ 





#### **Click** "Next" to confirm the installation setup:

🕷 MariaDB 10.7 (x64) Setup	– 🗆 X
Custom Setup Select the way you want features to be installed.	MariaDB Server
Click the icons in the tree below to change the way	features will be installed.
MariaDB Server     Database instance     Client Programs     Backup utilities     Development Components     Third party tools     F HeidiSQL	Install server This feature requires 155MB on your hard drive. It has 3 of 3 subfeatures selected. The subfeatures require 73MB on your hard drive.
Location: C:\Program Files\MariaDB 10.7\	Browse
Reset Disk Usage	Back Next Cancel

**Enter** a new root password for the administrative ("root") user of the databse server (1) and **click** "Next" (2):

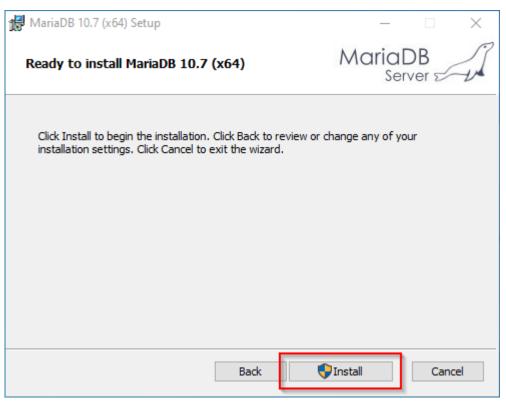
BlueSpíce MediaWiki	Se	tup:Installation Guide/System
	援 User settings	– 🗆 X
	Default instance properties MariaDB 10.7 (x64) database configuration	MariaDB Server
	Modify password for database user 'root' New root password: Confirm: Enable access from remote machines for 'root' user	er new root password the password
	Use UTF8 as default server's character set	
	Data directory C:\Program Files\MariaDB 10.7\data\	Browse
	Back	Next 2 ancel

**Click** "Next" in the *Default instance properties* window:

🔀 Database settings			_	
Default instance MariaDB 10.7 (x64)	<b>properties</b> database configuratio	on	Maria	
✓ Install as service Service Name:	MariaDB			
CP port:	<b>g</b> 3306			
Innodb engine s	ettings			
Buffer pool size:	1535 MB			
Page size:	16 🗸 KB			
		Back	Next	Cancel

**Click** "Install" to start the installation:





**Click** "Finish" after the installation to exit the setup:

🖶 MariaDB 10.7 (x64) Setup	– 🗆 X
	Completed the MariaDB 10.7 (x64) Setup Wizard
MariaDB'	Click the Finish button to exit the Setup Wizard.
	Back Finish Cancel

#### Setting the environment variable

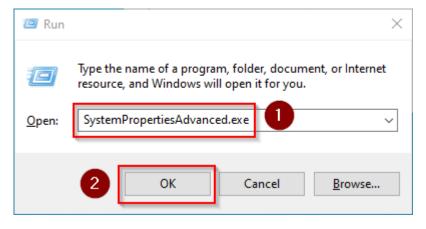
To be able to use MariaDB on the Windows command line without any problems, it is necessary to configure an environment variable in Windows. To do this, follow these steps:

**Enter** the key combination Windows+R.

BlueSpice

**NediaWiki** 

**Enter** "SystemPropertiesAdvanced.exe" (1) in the dialog window and **click** "OK" (2):



Click "Environment Variables...":

System Properties	×				
Computer Name Hardware Advanced Remote					
You must be logged on as an Administrator to make most of these changes. Performance Visual effects, processor scheduling, memory usage, and virtual memory Settings					
User Profiles Desktop settings related to your sign-in S <u>e</u> ttings					
Startup and Recovery System startup, system failure, and debugging information Settings					
OK Cancel Apply					

**Double-click** the entry "Path" in the section "System variables":

Blue Spice MediaWiki

ser variables for -adm-bhofma			
Variable	Value		
Path			
TEMP	C:\Users\ \AppData\Local\Microsoft\WindowsApps; C:\Users\ \AppData\Local\Temp		
TMP	C:\Users\ \AppData\Local\Temp C:\Users\ \AppData\Local\Temp		
	New Edit Delete		
stem variables			
	Value		
Variable	Value C:\Windows\system32\cmd.exe		
Variable ComSpec			
Variable ComSpec DriverData	C:\Windows\system32\cmd.exe		
Variable ComSpec DriverData JAVA_HOME	C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData		
Variable ComSpec DriverData JAVA_HOME	C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData C:\BlueSpice\bin\jdk-17.0.2		
Variable ComSpec DriverData JAVA_HOME NUMBER_OF_PROCESSORS <del>OS</del> Path	C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData C:\BlueSpice\bin\jdk-17.0.2 8 Windows_NT C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;		
Variable ComSpec DriverData JAVA_HOME NUMBER_OF_PROCESSORS	C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData C:\BlueSpice\bin\jdk-17.0.2 8 Windows_NT		
Variable ComSpec DriverData JAVA_HOME NUMBER_OF_PROCESSORS <del>OS</del> Path	C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData C:\BlueSpice\bin\jdk-17.0.2 8 Windows_NT C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;		
Path	C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData C:\BlueSpice\bin\jdk-17.0.2 8 Windows_NT C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem; .COM:.EXE:.BAT:.CMD:.VBS:.VBE:.JS:.JSE:.WSF:.WSH:.MSC		

Click "New":



Edit environment variable		$\times$
%SystemRoot%\system32		New
%SystemRoot%		
%SystemRoot%\System32\Wbem		Edit
%SYSTEMROOT%\System32\WindowsPowerShell\v1.0\		
%SYSTEMROOT%\System32\OpenSSH\		Browse
C:\BlueSpice\bin\php-7.4.28		
		Delete
		Move Up
		Move Down
		Move Down
		Edit text
		Currectur
	ОК	Cancel
		.:!

**Add** the path to your MariaDB installation, which includes among otehrs the file *mysql.exe*. By default, this is the path C:\Program Files\MariaDB 10.7\bin



Edit environment variable	×
%SystemRoot%\system32	New
%SystemRoot% %SystemRoot%\System32\Wbem	Edit
%SYSTEMROOT%\System32\WindowsPowerShell\v1.0\	
%SYSTEMROOT%\System32\OpenSSH\	Browse
Ci\BlueSpice\bin\php 7.4.28 C:\Program Files\MariaDB 10.7\bin	Delete
	Move Up
	Move Down
	Edit text
	OK Cancel

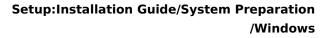
**Close** all newly opened windows one after the other by clicking "OK".

#### Next step

If you have successfully completed all of the above steps, proceed to the next step: OpenJDK

# Setup:Installation Guide/System Preparation/Windows /Microsoft Visual C++ Redistributable

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3 Next step	7





BlueSpice

The installation of Visual C ++ Redistributable for Visual Studio 2015 is required to run PHP in version 7.x on Windows. The steps listed here are required.

## Download

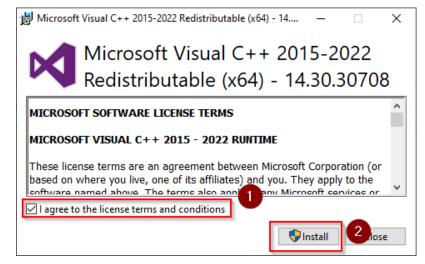


The content of this section refers to external sources and is current at the time of writing this documentation. We cannot guarantee how long these sources will remain unchanged. Please let us know if you notice any discrepancies to the information provided here.

According to Microsoft, the corresponding installation package is available under a permanent download link (documentation at Microsoft). Download this setup package.

## Installation

**Open** the Setup, **confirm** the "license terms and conditions" (1) and **click** "Install" (2):



## Next step

If you have successfully completed all of the above steps, go to the next step: PHP Manager.



## **OpenJDK on Windows**

## Contents

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3	Setting the environment variable	. 40
4	Next step	42





OpenJDK is a prerequisite for operating the Extended Search and the PDF export. The steps listed here are therefore optional and only required if you want to use one or more of these services in your BlueSpice installation.



In the following documentation, we work with OpenJDK in version 17.0.2, the current version at the time of writing. You can also use other versions as long as they meet the system requirements we have published. Please note that you then have to adjust the information in this documentation accordingly.

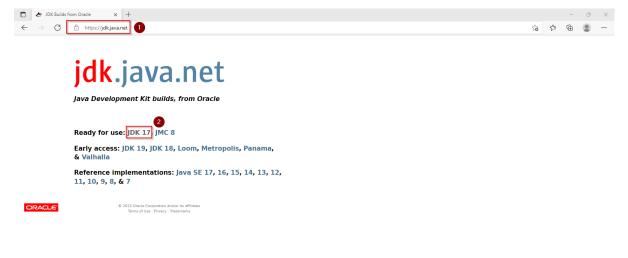
## Download



🕂 🔃 🔁 JDK Builds from Oracl...

The content of this section refers to external sources and is current at the time of writing this documentation. We cannot guarantee how long these sources will remain unchanged. Please let us know if you notice any discrepancies to the information provided here.

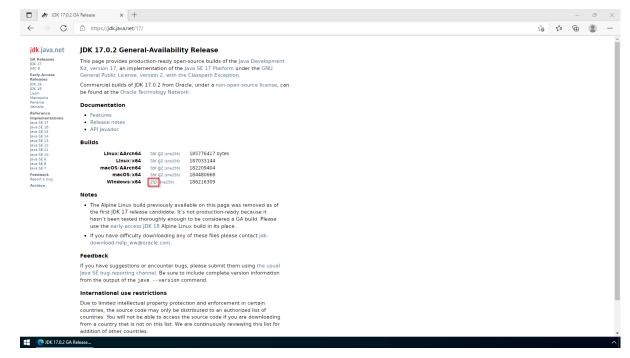
#### Open the official website at java.net (1) and click "JDK 17" (2):







#### **Download** the ZIP archive for Windows:



## Unpacking the ZIP archive



This documentation is based on the folder structure recommended by us. If you want to adjust this individually, you have to adjust the paths yourself according to your own level of knowledge.

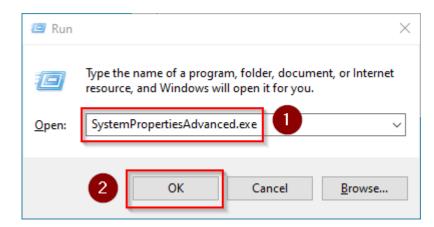
Unpack the downloaded ZIP archive to *C:\BlueSpice\bin*. The file structure *C:\BlueSpice\bin\jdk-17.0.2* should be the result.

#### Setting the environment variable

**Enter** the key combination Windows+R.

Enter "SystemPropertiesAdvanced.exe" (1) in the dialog window and click "OK" (2):

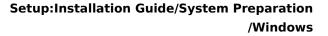




#### **Click** "Environment Variables...":

ystem Propertie	S			)
Computer Name	Hardware	Advanced	Remote	
You must be lo	gged on as a	an Administra	or to make most of these cha	nges.
Performance				
Visual effects,	processor s	cheduling, m	emory usage, and virtual mem	ory
			_	
			<u>S</u> ettings.	
User Profiles				
Desktop settir	ngs related to	o your sign-in		
	-			
			S <u>e</u> ttings.	
Startup and B	ecoverv			
Startup and Recovery System startup, system failure, and debugging information				
			Se <u>t</u> tings.	
			Enviro <u>n</u> ment Variab	les
			· · · · · · · · · · · · · · · · · · ·	
		OK	Cancel A	pply

#### Click "New...":





Variable	Value
Path	C:\Users\\AppData\Local\Microsoft\WindowsApps;
TEMP	C:\Users\ \AppData\Local\Temp
TMP C:\Users\ \\AppData\Local\Temp	
	New Edit Delete
Variable	Value
Variable ComSpec	Value C:\Windows\system32\cmd.exe
Variable ComSpec DriverData	Value
Variable ComSpec DriverData NUMBER_OF_PROCESSORS	Value C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData
Variable ComSpec DriverData NUMBER_OF_PROCESSORS OS	Value C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData 8
Variable ComSpec DriverData NUMBER_OF_PROCESSORS OS Path	Value C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData 8 Windows_NT
stem variables Variable ComSpec DriverData NUMBER_OF_PROCESSORS OS Path PATHEXT PROCESSOR ARCHITECTURE	Value C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData 8 Windows_NT C:\Windows\System32;C:\Windows;C:\Windows\System32\Wbem;

**Set** the variable name to "JAVA\_HOME" (1), and the variable value to the directory of your OpenJDK installation that you just copied to *C:\bluespice\bin* (2).

You can use the "Browse directory" button (3) for that.

**Click** "OK" (4):

New System Variable		×
Variable name:	JAVA_HOME	
Variable value:	C:\BlueSpice\bin\jdk-17.0.2	
Browse Directory	3 Browse File	4 OK Cancel

**Close** all newly opened windows one after the other by clicking "OK".

#### Next step

If you have successfully completed all of the above steps, proceed to the next step: Apache Tomcat.



# Setup:Installation Guide/System Preparation/Windows /OpenSearch

OpenSearch is available from BlueSpice 4.4. Earlier versions of BlueSpice 4 support Elasticsearch.

#### Installation

Follow the official installation instructions on opensearch.org. Example for Debian:

https://opensearch.org/docs/latest/install-and-configure/install-opensearch/windows/

## **Plugin installation**

You also need the plugin *ingest-attachment*. Install it as described here:

https://opensearch.org/docs/latest/install-and-configure/plugins/

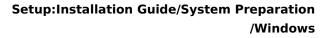
#### Next step

If you have completed all steps successfully, you can proceed to the next step "Python".

## Setup:Installation Guide/System Preparation/Windows/PHP

#### Contents

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2	Unpacking the ZIP archive	. 45
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	Checking the environment variable	
5	Configuring IIS for PHP	. 50
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BlueSpice

The source code of BlueSpice is based on the scripting language "PHP". It must be installed on your server in order to operate BlueSpice. The steps listed here are required.



PHP is not installed with a "classic installation package" but the sources are downloaded and integrated into IIS via the PHP Manager that you installed in the previous step.

## Download



The content of this section refers to external sources. We cannot guarantee how long these sources will remain unchanged. Please let us know if you notice any discrepancies to the information provided here.

The PHP version in this instruction serves only as an example.

#### **Open** the officical download page for Windows auf php.net (1).

Find a currently supported version (2) 64-bit Non Thread Safe (3) and download it (4):

PHP For Windows: Binaries and : x +			-	0	×
← → C <sup>d</sup> https://windows.php.net/download/	τô	£j≡	Ē		
Development package (SDK to develop PHP extensions) [1.16MB]     sha256: ebcbabd6977418ecc864c081c27aa688645ea617aa61f16d32ca67385db0cdc2					ľ
PHP 7.4 (7.4.28) 2					
Download source code [23.58MB] Download tests package (pbgt) [13.54MB]					
VC15_x54 Non Thread Safe 2 3 Feb-24 17:53:12)           • 200 F extMB           sha255.022ed33a06da592cb6eeb6e98fd4899006f50e2eea3482caf67e570600e3dbda           • Debug Pack [21.99MB]           sha256: e52366bf53ec5af44ccb356efe9774b38e30b23a0cf18a96400a1d8c9f3c8dba           • Development package (SDK to develop PHP extensions) [1.08MB]           sha256: 911da004ee452baba56abc8917965da269ceabd2112813da5deb20757c9bod					
VCL1s x64 Thread Safe (2022-Feb-24 17:53:21)           2m [24.90MB]           sha256: c08/H009667/81325495054976cc56544212d5bc4856fa08e219313d84720563           Debug Pack [21.98MB]           sha256: e5a3/Bb41ce29549024a0821d9b7e120c0cda/b1fa728a0245/6840b6596c160           Development package (SDX to develop PHP extensions) [1.08MB]           sha256: 031c3/6bc5ac42d2551916947bc16409123698ad2d73/fbbd11ae3eee4ac1683e					
VC15 x86 Non Thread Safe (2022-Feb-24 17:53:21)					



Follow the download instructions.

## Unpacking the ZIP archive

**Unpack** the ZIP archive that you just downloaded into a useful system path on your hard drive.



This documentation assumes the recommended folder structure.

For this reason PHP will be unpacked into the folder C:\bluespice\bin\php-<version>. If you have a different folder structure, you must adapt these paths accordingly.

## Setting the environment variable

To use PHP easily on the command line of Windows, it is necessary to configure an environment variable in Windows. Perform the following steps:

**Enter** the key combination Windows+R.

Enter "SystemPropertiesAdvanced.exe" (1) in the dialog window and click "OK" (2):

🖅 Run	×
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
<u>O</u> pen:	SystemPropertiesAdvanced.exe
	2 OK Cancel <u>B</u> rowse

**Click** "Environment Variables...":



System Properties	$\times$
Computer Name Hardware Advanced Remote	
You must be logged on as an Administrator to make most of these changes Performance Visual effects, processor scheduling, memory usage, and virtual memory Settings	
User Profiles Desktop settings related to your sign-in S <u>e</u> ttings	
Startup and Recovery System startup, system failure, and debugging information Settings	
Enviro <u>n</u> ment Variables	]
OK Cancel Apply	

**Double-click** the entry "Path" in the section "System variables":

Blue Spice MediaWiki

ironment Variables			
lser variables for -adm-bhofma	ann		
Variable Value			
Path C:\Users\ AppData\Local\Microsoft\WindowsApps;			
TEMP	C:\Users\ \\AppData\Local\Temp		
TMP C:\Users\ AppData\Local\Temp			
New Edit Dele			
Variable	Value		
Variable ComSpec	C:\Windows\system32\cmd.exe		
Variable ComSpec DriverData	C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData		
Variable ComSpec DriverData JAVA_HOME	C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData C:\BlueSpice\bin\jdk-17.0.2		
Variable ComSpec DriverData	C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData C:\BlueSpice\bin\jdk-17.0.2 8		
Variable ComSpec DriverData JAVA_HOME NUMBER_OF_PROCESSORS	C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData C:\BlueSpice\bin\jdk-17.0.2 8 Windows_NT		
Variable ComSpec DriverData JAVA_HOME NUMBER_OF_PROCESSORS OS Path	C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData C:\BlueSpice\bin\jdk-17.0.2 8 Windows_INT C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;		
ComSpec DriverData JAVA_HOME NUMBER_OF_PROCESSORS OS	C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData C:\BlueSpice\bin\jdk-17.0.2 8 Windows_NT		
Variable ComSpec DriverData JAVA_HOME NUMBER_OF_PROCESSORS OS Path	C:\Windows\system32\cmd.exe C:\Windows\System32\Drivers\DriverData C:\BlueSpice\bin\jdk-17.0.2 8 Windows_INT C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;		

Click "New":



Edit environment variable	×
%SystemRoot%\system32	New
%SystemRoot%	
%SystemRoot%\System32\Wbem	Edit
%SYSTEMROOT%\System32\WindowsPowerShell\v1.0\	
%SYSTEMROOT%\System32\OpenSSH\	Browse
	Delete
	Move Up
	Move Down
	Edit text
ОК	Cancel

**Add** the path to your unpacked PHP version, which contains the php.exe file:



Edit environment variable	×
%SystemRoot%\system32	New
%SystemRoot%	
%SystemRoot%\System32\Wbem	Edit
%SYSTEMROOT%\System32\WindowsPowerShell\v1.0\	
%SVSTEMROOT%\System32\OpenSSH\	Browse
C:\BlueSpice\bin\php-7.4.28	Delete
	Delete
	Move Up
	Move Down
	Edit text
OF	K Cancel

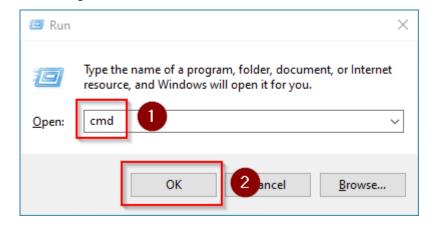
Close all newly opened windows one after the other by clicking "OK".

#### Checking the environment variable

To make sure the environment variable is set correctly, perform the following steps:

**Enter** the key combination Windows+R.

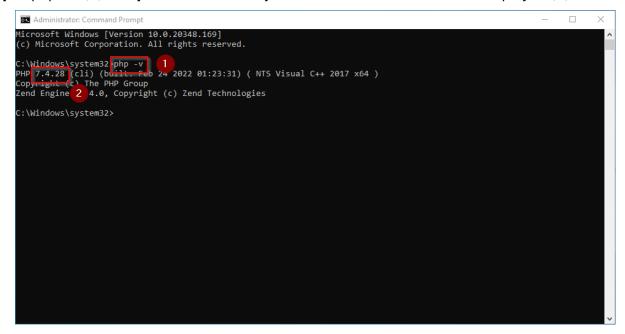
Enter "cmd" (1) in the dialog window and click "OK" (2):



The command prompt opens.

BlueSpice

**Type** "php -v" (1) and **press** the *Enter* key. The found PHP version will be displayed (2).



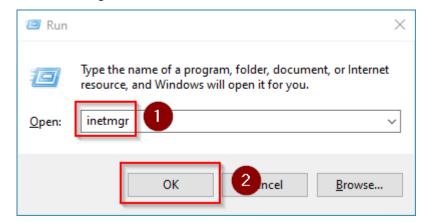
If this is not the case, then the path to the php.exe file in the environment variables was specified incorrectly.

## Configuring IIS for PHP

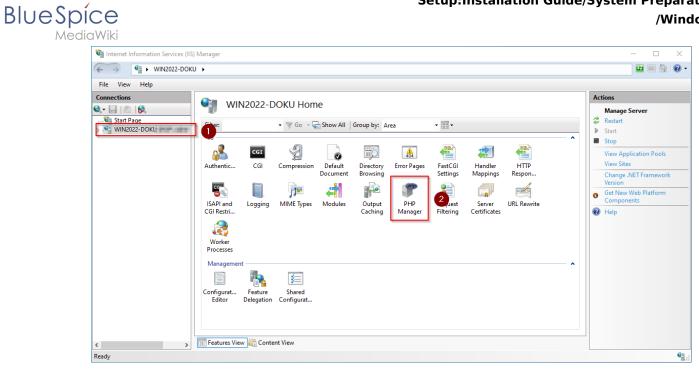
In the following steps, PHP will be included in IIS and IIS will be configured to provide a working basic setup:

**Press** the key combination Windows+R to call up IIS Manager.

**Enter** "inetmgr" (1) in the dialog window and **click** "OK" (2):



Select your server name (1) in the left pane and then **double-click** "PHP Manager" (2):



#### Click "Register new PHP version":

Conternet Information Services (IIS) M	nager	- 🗆 X			
← → WIN2022-DOKU		😰 🖂 🚱 🔻			
File View Help					
Connections	PHP Manager  set this feature to check the PHP runtime settings, to configure PHP runtime directives and to enable or dis  PHP Settup  PHP Settup  PHP version: Not available  PHP version: Not available Handler mapping: Not available  Register new PHP version Check phpinfo().  PHP Settings  Configuration file: Not available Error log: Not available Configure error reporting [Set runtime limits [Manage all settings]	sable PHP extensions.			
< >>	BLID Extensions Features View 🖓 Content View	v			
Configuration: 'localhost' applicationHo	config	S			

#### **Select** the browse "(...)" button in the next window:

Register new PHP version	?	$\times$
Provide a path to the php executable file (php-cgi.exe):  Example: C:\PHP\php-cgi.exe		
ОК	Cancel	



**Change** to the path to which you previously unzipped PHP (1), **mark** the "php-cgi.exe" (2) and **click** "Open" (3):

Select PHP executable file			×
$\leftarrow$ $\rightarrow$ $\checkmark$ $\uparrow$ $\bullet$ Local Disk (C:) $\Rightarrow$ BlueSpice $\Rightarrow$ bin $\Rightarrow$ php-7.4.28	5 v 🕕	Search php-7.4.28	م
Organize  New folder	-		• 🔳 ?
A Name	Date modified	Туре	Size
📌 Quick access 🔤 dev	2/23/2022 5:44 PM	File folder	
💻 This PC	2/23/2022 5:44 PM	File folder	
🗊 3D Objects 🔤 extras	2/23/2022 5:47 PM	File folder	
🔜 Desktop 🔤 🔒 lib	2/23/2022 5:44 PM	File folder	
🗄 Documents	2/23/2022 5:44 PM	File folder	
Downloads	2/23/2022 5:44 PM	Application	69 KB
h Music			
E Pictures			
Videos			
🏪 Local Disk (C:)			
Network v <			
File name:	~	PHP executable (ph	p-cgi.exe) 🗸
	3	Open	Cancel

#### Click "OK":

Register new PHP version	?	$\times$
Provide a path to the php executable file (php-cgi.exe):		
C:\BlueSpice\bin\php-7.4.28\php-cgi.exe		
Example: C:\PHP\php-cgi.exe		
ОК	Cancel	

**Click** "Configure error reporting":



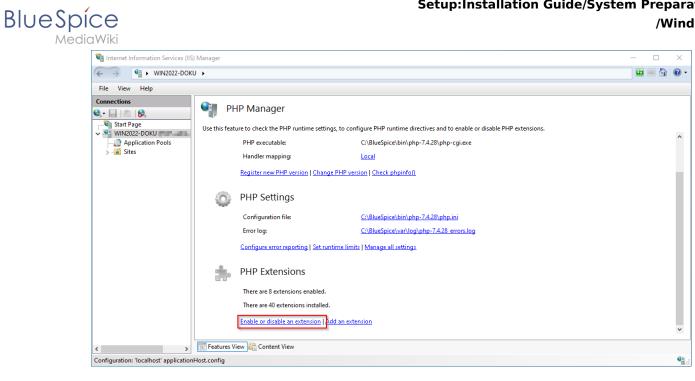
) Internet Information Services (IIS	S) Manager			- 🗆	$\times$
← → ♥IN2022-DOK	KU 🕨			🕶 🖂 🏠	•
File View Help					
Connections		HP Manager ture to check the PHP runtim PHP Setup PHP version:	ne settings, to configure PHP runtime directives and to enable or disable PHP extensions.		^
		PHP version: PHP executable:	7.4.28 C∖\BlueSpice\bin\php-7.4.28\php-cqi.exe		
		Handler mapping:	Local		
			Change PHP version   Check phpinfo()		
	٢	PHP Settings			
		Configuration file:	C:\BlueSpice\bin\php-7.4.28\php.ini		
		Error log:	C:\Windows\Temp\php-7.4.28 errors.log		
		Configure error reporting	Set runtime limits   Manage all settings		
	2.2	PHP Extensions			
		There are 8 extensions en	ahlari		~
< >>	Features V	View 🕼 Content View			
Configuration: 'localhost' application	nHost.config				6

**Select** the item "Production machine" (1) and **enter** a path and a file of your choice where PHP should save its log (2). **Click** "Apply" (3):

Internet Information Services (IIS)	) Manager	- 🗆 ×
	U •	😰 🖂 😭 🔞
File View Help		
Connections	PHP Error Reporting         Use this feature to configure how PHP reports and logs errors, warnings and information notices.         Type of server         Select a server type. This will influence how the errors will be reported and logged. <ul> <li>Development machine</li> <li>This is a development machine. A verbose error reporting will be used. All errors, warnings and informational notices will be output in a web browser and also will be written into a log file.</li> <li>Deroduction machine</li> <li>This is a production server accessible from the internet. Only errors will be written to a log file.</li> <li>Error log file:</li> <li>C:\BlueSpice\var\log\php-7.4.28_errors.log</li> </ul> <li>Features View Content View</li>	Action: Action: Apply Second Back to main page Help
Configuration: 'localhost' application	Host.config	•

This documentation assumes the recommended folder structure. If the path you specify here does not yet exist, please create it before clicking "Apply".

**Click** "Enable or disable an extension" in the main window:



Make sure that the following extensions are activated:

Internet Information Services (IIS	5) Manager		– 🗆 X
← → ♥ WIN2022-DOK	:U •		📴 🔤 🏠 🔞 🗸
File View Help			
Connections	PHP Exten	rions	Actions
🔍 - 🔒 🖄 🔒	PHP Exten	SIOTIS	Add
Start Page VIN2022-DOKU		dditional functionality to PHP runtime, such as database connectivity, caching, debugging and others. Use this le PHP extensions and to configure PHP extensions settings.	Open php.ini Back to main page
> - i Sites	Filter:	▼ ኛ Go → 🖕 Show All   Group by: State -	Help
	Name	State	
	Enabled	·	
	php_curl.dll	Enabled	
	php_fileinfo.dll	Enabled	
	php_gd2.dll	Enabled	
	php_gettext.dll	Enabled	
	php_intl.dll	Enabled	
	php_mbstring.dll	Enabled Enabled	
	php_mysqli.dll php_opcache.dll	Enabled	
	php_openssl.dll	Enabled	
	php_soap.dll	Enabled	
	php_xmlrpc.dll	Enabled	
	Disabled	^ I	
	php_bz2.dll	Disabled	
	php_com_dotnet.dll	Disabled	
	php_dba.dll	Disabled 🗸	
< >	Features View 🕼 Cont	ent View	
Configuration: 'localhost' application	nHost.config		Sec. 19

To activate an extension, find it in the "Disabled" extensions (1) and **click** "Enable" (2):



Internet Information Services (			
+ → ¶ ► WIN2022-DC	оки 🕨		🔤 🖂 🚱 🕷
File View Help			
Connections	PHP Exten	sions	Actions
s• 🔒 🖄 😽		SIGHS	Add
📲 Start Page	PHP extensions provide a	dditional functionality to PHP runtime, such as database connectivity, caching, debugging a	and others. Use this 2 Enable
• WIN2022-DOKU		le PHP extensions and to configure PHP extensions settings.	Open php.ini
Application Pools Sites	Filter:	🔹 🐺 Go 👒 🖕 Show All   Group by: State 🔹	🔶 Back to main page
	Name	State	A Help
	php_bz2.dll	Disabled	
	php_com_dotnet.dll	Disabled	
	php_dba.dll	Disabled	
	php_enchant.dll	Disabled	
	php_exif.dll	Disabled	
	php_ffi.dll	Disabled	
	php_ftp.dll	Disabled	
	php_gmp.dll	Disabled	
	php_imap.dll	Disabled	
	php_intl.dll	Disabled	
	php_Idap dll	Disabled	
	php_oci8_12c.dll	Disabled	
	php_odbc.dll	Disabled	
	php_pdo_firebird.dll	Disabled	
	php_pdo_mysql.dll php_pdo_oci.dll	Disabled	v
	DOD DOD OCLOII	DISADIED	
2	Features View 👫 Cont	ent View	
nfiguration: 'localhost' applicati			

**Open** the configuration file *php.ini*:

Internet Information Services (IIS) Manager				
	← →			
File View Help				
Connections	PHP Manager Use this feature to check the PHP runtime settings, to configure PHP runtime directives and to enable or disable PHP extensions.		^	
—	Yr PHP Setup			
	PHP version: 7.4.28			
	PHP executable: C:\BlueSpice\bin\php-7.4.28\php-cgi.exe			
	Handler mapping:			
	Register new PHP version   Change PHP version   Check phpinfoΩ			
	PHP Settings			
	Configuration file: C:\BlueSpice\bin\php-7.4.28\php.ini			
	Error log: C\BlueSpice\var\log\php-7.4.28 errors.log			
	Configure error reporting   Set runtime limits   Manage all settings		ł.	
	PHP Extensions			
	There are 11 extensions enabled		*	
< >>			0.	
Configuration: 'localhost' application	nHost.config		€	

Replace the line extension=php\_opcache.dll with zend\_extension=php\_opcache.dll :

BlueSpice

*php - Notepad				_		$\times$
File Edit Format View Help						
extension=php_curl.dll						^
[PHP_GD2]						
extension=php_gd2.dll						
[PHP_GETTEXT]						
extension=php_gettext.dll						
[PHP_MYSQLI]						
extension=php_mysqli.dll						
[PHP_MBSTRING]						
extension=php_mbstring.dll						
[PHP_OPENSSL]						
extension=php_openssl.dll [PHP SOAP]						
extension=php_soap.dll						
[PHP_XMLRPC]						
extension=php_xmlrpc.dll						
[PHP FILEINFO]						
extension=php fileinfo.dll						
[PHP_OPCACHE]						
zend_extension=php_opcache.dll						
extension=php_intl.dll						- 6
<						>
	Ln 1978, Col 31	100%	Windows (CRLF)	UTF-	8	

#### **Change** the following options to the values below:

Name	Wert	Kommentar
date.timezone	"Europe/Berlin"	Select the appropriate time zone for you. Uncomment the entry
max_execution_time	600	
post_max_size	1024M	
upload_max_filesize	1024M	
opcache.enable	1	Uncomment the entry
opcache.enable_cli	0	Uncomment the entry
opcache. memory_consumption	512	Uncomment the entry
opcache. max_accelerated_files	1000000	Uncomment the entry
opcache.validate_timestamps	1	Uncomment the entry
opcache.revalidate_freq	2	Uncomment the entry
opcache.optimization_level	0x7FFF9FFF	Uncomment the entry
opcache.blacklist_filename	C:\bluespice\etc\opcache. blacklist	Uncomment the entry
zlib.output_compression	On	
zlib. output_compression_level	9	Uncomment the entry

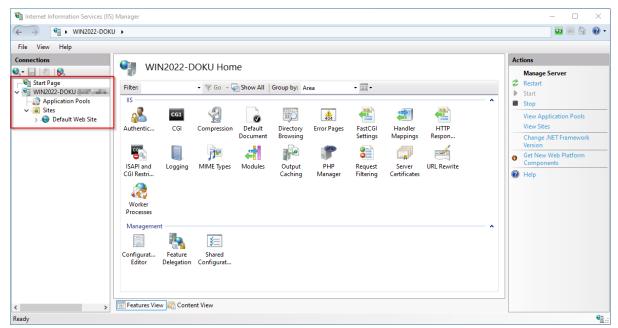


Save and close the file.

**Create** the folder C:\bluespice\etc .

```
Create a text file named opcache.blacklist content C:
\bluespice\var\www\w\extensions\BlueSpiceFoundation\config\*
```

**Expand** the tree in the left pane of the IIS Manager until the "Default Web Site" becomes visible:



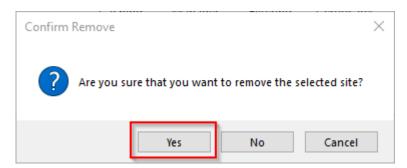
#### Right-click (1) and then click "Remove" (2):

ile View Help					
nnections • 🗔 🖄 😪	WIN2022-	DOKU Home			Actions Manage Server
Start Page WIN2022-DOKU		🔹 🐨 Go 🕞 🔤 Show All	Group by: Area		Restart     Start     Stop
V Sites	Explore CGI	Compression Default Documen	Directory Error Pages	FastCGI Handler HTTP Settings Mappings Respon	View Application Pools View Sites Change .NET Framework
@ 2	Add Application Add Virtual Directory	<b>)</b> 🛃		Request Server URL Rewrite	Version Get New Web Platform Components
	Edit Bindings Manage Website		Caching Manager	Filtering Certificates	🕑 Help
	Remove 2				- •
	Switch to Content View Configurat Feature	n Configurat			

**Confirm** the following dialog with "Yes":







Right-click "Sites" (1) and click "Add Website" (2):

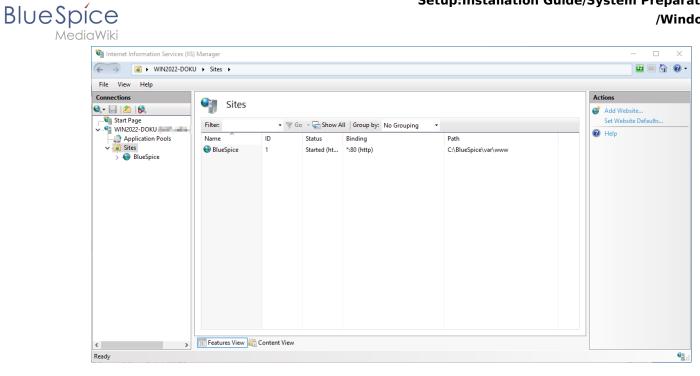
Internet Information Services (IIS) M	anager	- 🗆 X
← → ♥IN2022-DOKU	>	😰 🛛 🟠 🔞 🗸
File View Help		
Connections Start Page WIN2022-DOKU Site Add Website Refresh Switch to Content V	WIN2022-DOKU Home         Filter:          •	Actions Action
< >> Eady	Features View Content View	• •

**Enter** the site name "BlueSpice" (1) and **select** the path on your server where your BlueSpice installation will be located later (2).

**Click** "OK" (3):

Media	Add Website	? >
	Site name: Application pool: BlueSpice BlueSpice	Select
	Content Directory Physical path. C:\BlueSpice\var\www Pass-through authentication Connect as Test Settings	
	BindingType:IP address:Port:httpVAll Unassigned80	
	Host name: Example: www.contoso.com or marketing.contoso.com	
	Start Website immediately	DK 3 ancel

The site is now listed in the IIS overview page:

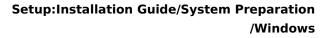


## Next step

If you have successfully completed all of the above steps, proceed to the next step: MariaDB.

## Setup:Installation Guide/System Preparation/Windows/PHP Manager

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BlueSpice

PHP Manager conveniently integrates PHP into your IIS installation. The steps listed here are required.

## Download



The content of this section refers to external sources and is current at the time of writing this documentation. We cannot guarantee how long these sources will remain unchanged. Please let us know if you notice any discrepancies to the information provided here.

**Open** the official website at iis.net (1) and **click** "Download this extension" (2).

	We are excited to	announce that the	IIS.NET Forums	are moving to the	e new Microso	ft Q&A e	xperience. L	earn more >			
Microsoft						Search all o	of IIS.NET		٩	Sign In	
IIS Home	Manage	Downloads	Learn	Reference	Solution	s ∨	Blogs	Forums			
All Downloads Co	ommunity Contributed D	ownloads Microso	oft Supported Dov	vnloads Free Wel	b Platform Install	ler					
	Community Contributed D	ownloads > PHP Manag	ger 1.5.0 for IIS 10								
	Community Contributed D	ownloads > PHP Manag	ger 1.5.0 for IIS 10								
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Home > Downloads > PHP Manage	er 1.5.0 for IIS 1		ger 1.5.0 for IIS 10	Download	this extensi	ion	2				
Home > Downloads >	er 1.5.0 for IIS 1		ger 1.5.0 for IIS 10		this extensi		2				
Home > Downloads > PHP Manage	er 1.5.0 for IIS 1 Contributed Download		ger 1.5.0 for IIS 10				2				
Home > Downloads > PHP Manage	er 1.5.0 for IIS 1 Contributed Download	10	ger 1.5.0 for IIS 10				2				
Home + Downloads + PHP Manage This is a Community of Category	er 1.5.0 for IIS 1 Contributed Download Host Appli	10	ger 1.5.0 for IIS 10				2				
Home → Downloads → PHP Manage This is a Community of Category License	er 1.5.0 for IIS 1 Contributed Download Host Appli Free Knowledge	10 ications. Manage	ger 1.5.0 for IIS 10				2				
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Home + Downloads + PHP Manage This is a Community of Category License Supported by Works With	Host Appli Free Knowledge UIS 7, IIS 7.	10 ications. Manage e base. Forums 5, IIS 8, IIS 8,5, IIS 10 orger 1,5,0 for IIS 10 Do					2				

**Click** "OK" after reading the disclaimer:

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All Dov	ownloads Comm	nunity Contributed I		OK Cancel							
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PHP The Categ	P Manager his is a Community Contr gory	1.5.0 for IIS ributed Download Host App	Downloads > F	Download this extension Geroffical download with the Web Pattom Installe							
PHP ♣ The Catego License	P Manager Is is a community Contr gory Ise	1.5.0 for IIS ributed Download Host App Free	Downloads + F 10 Dications, Mar	Download this extension Gerofficial download with the Web Parton incluie							
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Follow the download instructions of your browser.

## Installation

BlueSpice

Open the installation file which you have just downloaded.

**Click** "Next >" to start the installation:



**Select** "I agree" (1) in the License Agreement and **click** "Next >" (2):





🔀 PHP Manager for IIS	_		×
License Agreement			
Please take a moment to read the license agreement now. If you accept the Agree", then "Next". Otherwise click "Cancel".	terms b	elow, click	יי
The MIT License (MIT)			^
Copyright (c) 2016 Ronald Carter			
Permission is hereby granted, free of charg person obtaining a copy	ie, to	any any	
of this software and associated documentati (the "Software"), to deal	on fi	iles	
in the Software without restriction, includ	ling v	vithout	
limitation the rights			~
O I Do Not Agree			
Cancel < Bac	2	Next >	

The installation is now executed and completed without further confirmation.

**Close** the setup program when finished:

PHP Manager for IIS	_		$\times$
Installation Complete			
PHP Manager for IIS has been successfully installed.			
Click "Close" to exit.			
Please use Windows Update to check for any critical updates to the .NET I	Framew	ork.	
Cancel < Back		CI	ose

## Next step

If you have successfully completed all of the above steps, go to the next step: PHP.



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BlueSpice

Python with the Pygmentize extension is required for rendering the MediaWiki extension SyntaxHighlight, which is part of BlueSpice. If you do not need the functionality, the installation of Python is not relevant for the installation and operation of BlueSpice.

## Download



The content of this section refers to external sources and is current at the time of writing this documentation. We cannot guarantee how long these sources will remain unchanged. Please let us know if you notice any discrepancies to the information provided here.

#### Download Python directly at python.org.

<ul> <li>➡ Welcome to Python.org</li> <li>← → C</li></ul>	x +							τô	£≞	-	a > •
	Python										
	n python			Dor			GO Socialize				
	About	Downloads	2 :umentation	Community	Success Stories	News Eve					
	<pre># Python 3: Fib &gt;&gt;&gt; def fib(n):</pre>	All releases	Downloa	d for Windows							
	>>> a, b =	Source code	Python	3.10.2 3		ng functio ments, ke					
	>>> while a >>> pri	Windows		Python 3.9+ cann	ot be used on Window						
	>>> a, >>> print()	macOS	earlier. Not the OS	S vou are looking fo	or? Python can be used	on					
	>>> print() >>> fib(1000)	Other Platforms	many ope	rating systems and	environments.						
	01123581	License	View the fi	ull list of download	S.						
		Alternative Impleme	entations								
			programming lan egrate systems mo								
	U Get Started Whether you're new to	Solution Solution	nload urce code and installers	Docs	tion for Python's	Solution Looking fo	r work or have a Python	-			
https://www.python.org/downloads/	programming or an experienced developer, it's easy to learn and us Python.		ele for download for all		orary, along with tutoria are available online.	hire for? O	sition that you're trying to ur <b>relaunched</b> y-run job board is the				



In the following, Python in version 3.10.2 is used and only serves as an example for the most current version that you can download at the time of your installation.

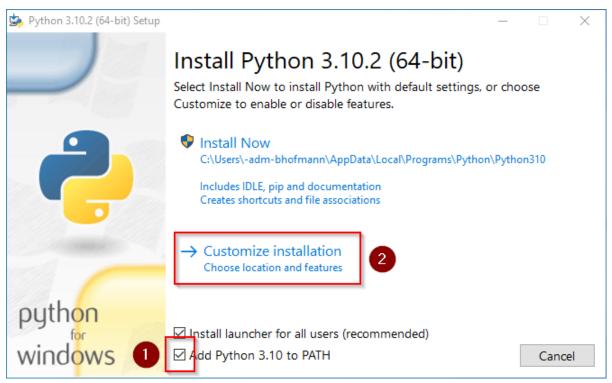


## Installation

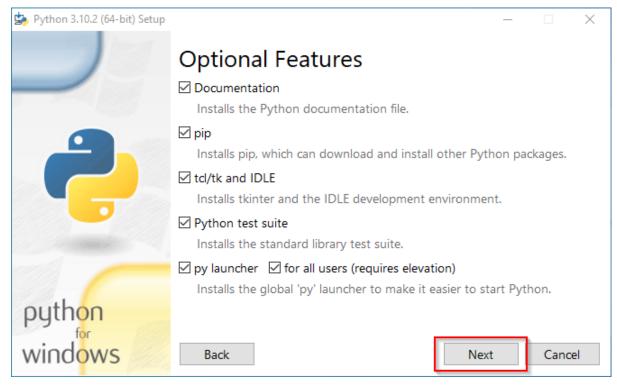
**Open** the file that you have just downloaded.

#### Select both checkboxes (1).

#### Click "Customize installation" (2):



#### **Click** "Next" in the Optional Features window.



BlueSpice

Make sure to install Python for all users (1) . Choose an appropriate path, if possible without spaces and special characters (2)

**Click** "Install" to start the installation (3).

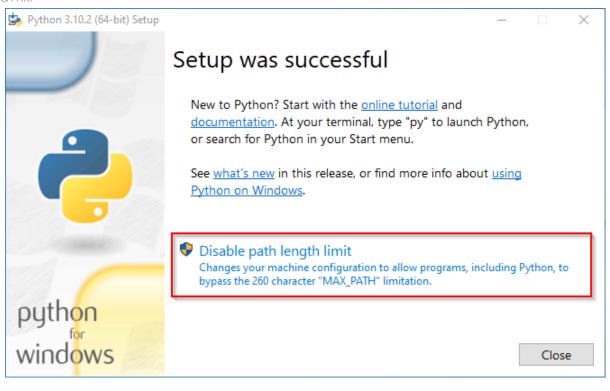
b Python 3.10.2 (64-bit) Setup		_		$\times$
	Advanced Options			
	Install for all users			
	Associate files with Python (requires the py launcher)			
	Create shortcuts for installed applications			
	Add Python to environment variables			
	Precompile standard library			
	Download debugging symbols			
	Download debug binaries (requires VS 2017 or later)			
	Customize install location			
	C:\BlueSpice\bin\python-3.10.2		Brows	e
python				
for				
windows	Back 3 Sack	1	Cance	el



This documentation assumes the folder structure recommended by us. For this reason, Python is unpacked at this point in the folder C: \bluespice\bin\python-3.10.2. If you have individual wishes, adjust these paths according to your own understanding.

**Deactivate** the limitation of the path length to 260 characters after the installation:

BlueSpice

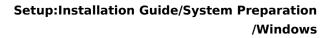


#### **Click** "Close" to finish the installation.

b Python 3.10.2 (64-bit) Setup	_		
	Setup was successful		
	New to Python? Start with the <u>online tutorial</u> and <u>documentation</u> . At your terminal, type "py" to launch Python, or search for Python in your Start menu. See <u>what's new</u> in this release, or find more info about <u>using</u> <u>Python on Windows</u> .		
python windows		Close	]

## **Installing Pygmentize**

**Open** the PowerShell (the command prompt in older Windows versions). To do this, **right-click** "Start" (1) and select "Command Prompt (Administrator)" (2):

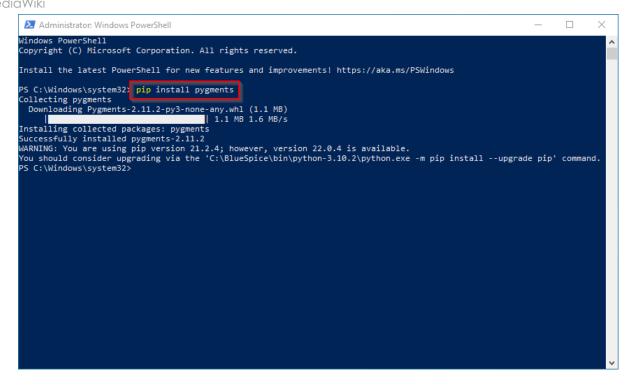




	Apps and Features
	Power Options
	Event Viewer
	System
	Device Manager
	Network Connections
	Disk Management
	Computer Management
	Windows PowerShell
	Windows PowerShell (Admin)
	Task Manager
	Settings
	File Explorer
	Search
	Run
	Shut down or sign out >
	Desktop
	<b>]</b>

Geben Sie den Befehl "pip install pygments" ein und warten Sie, bis der folgende Prozess

BlueSpíce



## Completion

Your Windows server is now fully prepared for the actual installation of BlueSpice.

## Setup:Installation Guide/System Preparation/Windows /Setting the system rights of the temporary Windows folder

## Contents

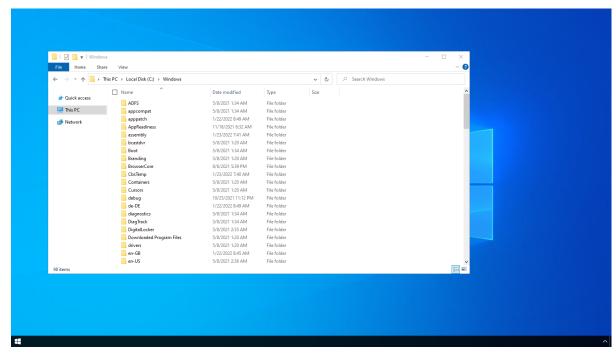
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Various applications require rights to write to the C:\Windows\Temp folder. These are not set as needed by default. In order to be able to carry out all further steps smoothly and also to be able to operate BlueSpice, you must first set these rights.

## Procedure

**Open** Windows Explorer:



**Right-click** on the folder "Temp" (1) and open the "Properties" (2):



Open Open in new window	Local Disk (C:) > Windows			ڻ ~	. ○ Search Windows		
Pin to Quick access	Name	Date modified	Type	Size		^	
Give access to	> ShellComponents	5/8/2021 1:20 AM	File folder				
Restore previous versions	ShellExperiences	5/8/2021 1:20 AM	File folder				
Include in library	> 📑 SKB	5/8/2021 1:34 AM	File folder				
Pin to Start	SoftwareDistribution	10/25/2021 11:06 PM	File folder				
Send to	Speech	5/8/2021 1:20 AM	File folder				
	Speech_OneCore	5/8/2021 1:20 AM	File folder				
Cut	System	5/8/2021 1:20 AM	File folder				
Сору	System32	1/23/2022 7:39 AM	File folder				
Paste	- SystemApps	5/8/2021 1:34 AM	File folder				
Create shortcut	SystemResources	8/6/2021 5:39 PM	File folder				
Delete	SystemTemp	1/23/2022 5:41 AM	File folder				
Rename	SysWOW64	1/23/2022 7:39 AM	File folder				
	TAPI	5/8/2021 1:20 AM	File folder				and the second
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	Vss	5/8/2021 1:20 AM	File folder				
	WaaS	5/8/2021 1:20 AM	File folder				
	Web	5/8/2021 1:34 AM	File folder				
	WinSxS	1/23/2022 7:40 AM	File folder				
98 items 1 item selected							

Select the tab "Security" (1) and click "Advanced" (2):

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A Network		SKB	5/8/2021 1:34 AM	File folder				
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		object.		File folder				
		Click Advanced to continue.		File folder				
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98 items   1 item selecte	d							
		For special permissions or advanc click Advanced.	ed se 2 Advanced					
		Click Advarided.	-					

Click "Continue":



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SS Rems 1 item selected		Name         Name         C1WindowsTemp           ShellE-reprinces         Owner:         Unable to display current owner.         Change           ShellE-princes         Owner:         Auditing         Effective Access           Shelle-princes         Permissions         Auditing         Effective Access
90 items 1 item selected		Cuttor Temp Propertie General Stang Object name: C Of You nut have Spect.
OK Cancel /ep/)	98 items 1 item selected	For special permissions or advanced settings. Advanced

#### Click "Advanced":

☐   📝 📑 ╤   Windows File Home Share View	и				_	- × ~ (2)	
Quick access  This PC  Network	me ShellComponents ShellComponents ShellComponents ShellComponents SoftwardDistribution Speech Speech_OneCore Extern. Temp Propertie General Shating Object name: Cr Object na	tional information, double-click a per on entrie: e Principal w Users (r	nission entry. To modify a Access Special Full control Full control Full control Full control	Inherited from None None None None entries from this object	e entry and click Edit (f available). Applies to This folders and subfolders This folder, subfolders and files Subfolders and files only		
98 items 1 item selected	For special permissions or advance click Advanced.	ed settings. Advanced			OK Cancel Apply		

**Click** "Select a principal":



📙   🗹 📑 🖛   Windows	- 0 X	
File Home Share View	Permission Entry for Temp -	×
← → ∽ ↑ 🛄 → This PC → Local 🕻	Principal: Select a principal	
Aurick access	Type: Allow	
🛄 This PC 🔤 ShellE	Applies to: This folder, subfolders and files	
Network     Softw     Softw     Speec	Baic permissions: Show advanced permission	ns
Spec	Full control     Modify     Read & create     List folder contents     Read     Write     Special permissions     Only apply these permissions to objects and/or containers within this container     Clear all  Add a condition to limit access. The principal will be granted the specified permissions only if conditions are met. Agid a condition	
98 items   1 item selected	OK Canc	8
For	pecial pemissions or advanced settings. Advanced Advanced.	
	OK Cancel Apply	
		^

**Ensure** that your local machine is selected in the field "From this location" (1). If this is not the case, **open** "Locations..." (2):

📕   🗹 📑 🖛   Windq	nve		×
File Home Sh		Permission Entry for Temp	X
	This PC > Local I	Select User, Computer, Service Account, or Group	
✓ Quick access	Name Shell Sk	From this location:	
	Softw Speec Curtar Gene Obj	AdvancedOK Cancel	Show advanced permissions Clearalt
98 items   1 item selec	ted		OK Cancel
	For	pecial permissions or advanced settings. Advanced Advanced OK Cancel Apply	

**Choose** the top path in the list (1) and close the dialog window (2):



I I I I Vindows File Home Share View	Permission Entry for Temp	
<ul> <li>← → · · ↑ → ThisPC + Lecalt</li> <li>Arre</li> <li>Parte</li> <li>Salt</li> <li>Salt</li></ul>	Select User, Computer, Service Account, or Group X  Locations  Select the location you want to search.  Control Contro	Show advanced permissions Clear at
98 items 1 item selected	Add a condition  ecial permissions or advanced settings.  Advanced  OK Cancel Apply	OK Cancel

**Enter** the user name "everyone" in the free-text field (1) of the window "Select User or Group". **Confirm** with "OK" (2).

I I I I I I I I I I I I I I I I I I I		×
File Home Share View	🖡 Permission Entry for Temp	- 🗆 🗙
← → ∽ ↑ 📙 → This PC → Local (	Select User or Group	
Quick access     Quick access     Shell     This PC     Shell     Network	From this location:  Locations	
Stretter Spece Scete Control	Persynel Deck Names Advanced. 2 OK Cancel	Show advanced permissions Clear all
98 items   1 item selected	special permissions or advanced settings. Advanced           Advanced           OK         Cancel	OK Caned

**Activate** the "Modify" checkbox (1) for basic permissions in the "Permission Entry for Temp" window and **click** "OK". (2):



🔜   🗹 📑 🖛   Windows	X
File Home Share View	Permission Entry for Temp - C X
← → ← → This PC → Local	Principal Everyone Select a principal Type Allow Applies to: This folder, subfolders and files
Appi asses box Down Down Do Do Do Do Do Do Do Do Do Do Do Do Do	Basic permissions Show advanced permissions  Show advanced permissions  Show advanced permissions  Read & cecute  Clust folder contents  Read
98 items 1 item selected	OK Cancel      OK Cancel      OK Cancel

**Close** all further dialog windows with "OK" or "Yes".

The rights for the temporary Windows folder are now set up correctly.

## Next step

If you have successfully completed all of the above steps, proceed to the next step: .NET Framework 3.5.

## Setup:Installation Guide/System Preparation/Windows /urlrewrite

## Contents

1 Download	
2 Installation	
3 Next step	



BlueSpice

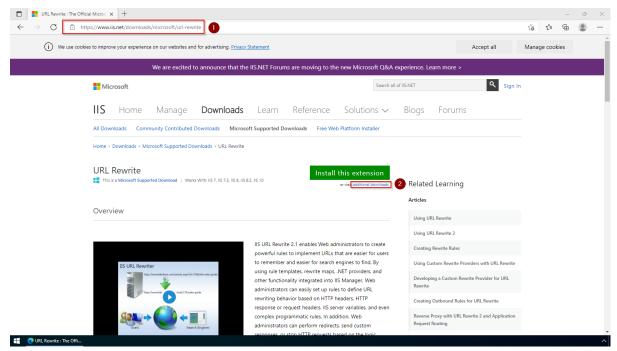
The "urlrewrite" module for IIS is only necessary if you want to configure redirection rules in your web server. If you want a setup which is recommended by us and also according to the recommendations of the Wiki Media Foundation, this step is required.

## Download



The content of this section refers to external sources and is current at the time of writing this documentation. We cannot guarantee how long these sources will remain unchanged. Please let us know if you notice any discrepancies to the information provided here.

**Open** the official website at iis.net (1) and **click** "additional downloads" (2):



Download the "x64 installer" in your language:

BlueSpice	Image: Section Sectin Section Section Section Section Section S	/Wine
	nite: The Official Micro: X +	- 0 X
		G & @ @
	English: Web Platform Installer (WebPl) / x86 installer x64 installer	
	German: x86 installer / x64 installer	
	Spanish: x86 installer / x64 installer	
	French: x86 installer / x64 installer	
	Italian: x86 installer / x64 installer	
	Japanese: x86 installer / x64 installer	
	Korean: x86 installer / x64 installer	
	Russian: x86 installer / x64 installer	
	Chinese Simplified: x86 installer / x64 installer	
	Chinese Traditional: x86 installer / x64 installer	
	Download Extensibility Samples	
	three most common use cases: storing of the rewrite or redirect mappings in a SQL database; storing of the rewrite or redirect	
	Download Samples	
	This site is managed for Microsoft by Neudesic, LLC.   © 2022 Microsoft. All rights reserved. Follow us on: Privacy Statement   Terms of Use   Contact Us   Hosted on Microsoft Azure   Advertise with Us   Manage cookies 💟 🖬	Microsoft Feedback on IIS
URL Rewrite	: The Offi	^

## Installation

**Open** the Setup window, **accept** the License Agreement (1) and **click** "Install" (2):

🖟 IIS URL Rewrite Module 2 Se	etup — 🗌	×
	Please read the IIS URL Rewrite Module 2 License Agreement	
	MICROSOFT SOFTWARE SUPPLEMENTAL LICENSE TERMS	^
	URL REWRITE MODULE	
	Microsoft Corporation (or based on where you live, one of its affiliates) licenses this supplement to you. If you are licensed to use Microsoft Windows operating system software (the "software"), you may use this supplement. You may not use it if you do not have a license for the software. You may use this supplement	*
	☑ I accept the terms in the License Agreement	
Print	Back SInstall 2 Jano	el

#### Next step

If you have successfully completed all of the above steps, go to the next step: Microsoft Visual C++ Redistributable.