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Setup:Installation Guide/System Preparation

Choose your operating system:

- [Linux](#)
- [Windows](#)

Setup:Installation Guide/System Preparation/Linux

- - [Introduction](#)
 - [Apache and PHP](#)
 - [MariaDB](#)
 - [Jetty](#)
 - [OpenSearch \(from BlueSpice 4.4\) / Elasticsearch \(up to BlueSpice 4.3\)](#)
 - [Python](#)
 - [Memcached](#)
 - [Mathoid \(BlueSpice pro only\)](#)
 - [PhantomJS \(BlueSpice pro only\)](#)

Installing Apache and PHP on Linux

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4	Configuring Apache	4
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Important! The web server delivers your BlueSpice installation to the user's browser. Without a web server, BlueSpice cannot be used. The source code of BlueSpice is based on the scripting language "PHP". This must also be installed on your server in order to operate BlueSpice. The steps listed here are required.

Introduction

Apache or Nginx are available as web servers under Linux. BlueSpice can theoretically also be operated with Nginx, but in this documentation only Apache is treated in detail. Of course, you can also install Nginx with the appropriate expertise and operate it according to the here documented Virtualhost configuration of Apache.

Note: If "User is not in the sudoers file." type "su" in the terminal and execute. Write a "sudo" in front of a command.

Installation

Install Apache and PHP using the Aptitude package manager with the following steps:

```
apt update; \  
apt install apache2 \  
libapache2-mod-php7.4 \  
php7.4 \  
php7.4-cli \  
php7.4-common \  
php7.4-curl \  
php7.4-gd \  
php7.4-intl \  
php7.4-json \  
php7.4-mbstring \  
php7.4-mysql \  
php7.4-opcache \  
php7.4-tidy \  
php7.4-xml \  
php7.4-zip; \  
apt clean
```

Depending on requirements, further PHP extensions may be necessary, e.g. for an LDAP connection.

Configuring PHP

After the installation has been completed, first configure PHP. First change to the directory `/etc/php/7.4/apache2` through the terminal and then execute the `php.ini` file with the command `nano php.ini`.

Find the following settings and change the values accordingly. If a setting is commented out with a semicolon in front of it, please remove it.

```
date.timezone = Europe/Berlin
max_execution_time = 600
post_max_size = 128M
upload_max_filesize = 128M
```

Set the value for 'date.timezone' according to your own time zone.

Save and exit the php.ini again.

Configuring Apache

Note: In this documentation, we assume the recommended installation with [ShortURL](#). In this case, the root directory of the web server is in `/var/www/bluespice`, but the actual source code of BlueSpice is in `/var/www/bluespice/w`. This configuration is designed accordingly.

Multiple virtual hosts

This guide applies to cases where BlueSpice is being installed on a dedicated server. If you have other virtual hosts configured, you may need to specify an alias for the `/w/` subfolder. Add the following to your Apache's http-specific configuration: `Alias /w/ /path/to/w/` (e.g., `Alias /w/ /var/www/html/example.com/w/`)

To configure a VirtualHost for BlueSpice, please proceed as follows:

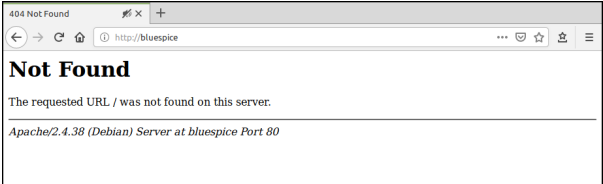
1. Change to the directory `/etc/apache2/sites-available`.
2. In a text editor of your choice, open the file `bluespice.conf`, which does not yet exist, and create it. Copy the entire contents of the following file into this new configuration file:
 1. For BlueSpice free: [apache_vhost_bluespice_free.txt](#)
 2. For BlueSpice pro: [apache_vhost_bluespice_pro.txt](#)
3. In rows 3 and 4, replace "SERVERNAME" and "SERVERALIAS" according to your server name and domain. If the server is explicitly operated with only one VirtualHost for BlueSpice, you can also completely remove these two lines.
4. Save the file and close it.

Delete the VirtualHost created by default during the Apache installation with the command `a2dissite 000-default`. Then activate the just created VirtualHost with the command `a2ensite bluespice`.

Next, activate the Module Rewrite, which we configured in the `bluespice.conf`, by entering the following command: `a2enmod rewrite`

Next, create the directory `/var/www/bluespice` (`mkdir /var/www/bluespice`) and restart Apache with the command `service apache2 restart`.

Next, call up the URL of your BlueSpice server (localhost). If configured correctly, Apache should respond to the request with the error message "Not found", which is completely correct at the time of installation.



Next step

If you have successfully completed all these steps, you can proceed to the next step "[MariaDB](#)".

Elasticsearch on Linux



OpenSearch is available up to BlueSpice 4.3. Newer versions of BlueSpice 4 support [OpenSearch](#).

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

Adding the package sources

Elasticsearch is not included in the package manager on Debian. However, the manufacturer provides a repository for the software. Add it with the following commands to your Debian installation. Prerequisite is that you have installed the program "gnupg" (`apt install gnupg`).

```
wget -q0 - https://artifacts.elastic.co/GPG-KEY-elasticsearch | apt-key add -; \  
echo "deb https://artifacts.elastic.co/packages/6.x/apt stable main" > /etc/apt  
/sources.list.d/elastic-6.x.list
```

Installing Elasticsearch

The subsequent installation of Elasticsearch will guide you through these commands.

```
apt update; \  
apt install elasticsearch; \  
apt clean
```

Installing ingest-attachment

For the advanced search in BlueSpice you need the plugin "ingest-attachment" for Elasticsearch. This Install it with the following command:

```
/usr/share/elasticsearch/bin/elasticsearch-plugin install -b ingest-attachment
```

Start Elasticsearch and add it to startup

Add the Elasticsearch to startup and then start the service:

```
systemctl enable elasticsearch; \  
service elasticsearch start
```

Next step

If you have completed all steps successfully, you can proceed to the next step "[Python](#)".

Introduction to the Bluespice installation guide for Linux

This chapter discusses how to prepare a complete Linux Server environment before running BlueSpice on it.

Due to the variety of Linux distributions on the market, this documentation has to choose one distribution. Therefore, we use Debian version 10 (buster).

Furthermore, Apache is used as a web server and Jetty as an application server. Alternatives are briefly discussed in the respective articles.

First, start with [installing Apache and PHP](#).

Jetty on Linux

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3 Configuration	8
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5 Next step	9

Note: Jetty is a prerequisite for using PDF export and VisualDiff (BlueSpice pro only). The steps listed here are optional and only required if you plan to use one or more of these services in your BlueSpice installation.

Introduction

An alternative to Jetty is Apache Tomcat, which you can also find in the package manager of Debian. However, since Jetty works better, this is preferred in this documentation.

Installing Jetty

Install Jetty via Aptitude:

```
apt update; \  
apt install jetty9; \  
apt clean
```

Configuration

Note: If you do not have the rights to save, run "sudo nano /etc/default/jetty9" in the terminal. And put the following line at the very end of the file.

To configure, open the file `/etc/default/jetty9` in a text editor of your choice (vi, nano). Put the following line at the very end of the file:

```
JAVA_OPTIONS="-Xms512m -Xmx1024m -Djetty.host=127.0.0.1"
```

Restart Jetty with the command `service jetty9 restart`.

Installing the web apps

In your browser, open the official download page on bluespice.com (1). Click on "Download" (2).

1. Unzip the BlueSpice-free-4.x.x.zip file.
2. Rename the folder "BlueSpice-free-4.x.x" to `bluespice`.
3. Rename the "bluespice" subfolder to `w`.
4. Now move the unzipped bluespice folder in the terminal with the command `sudo mv /yourfilepath /bluespice /var/www`.

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

- [PDF Export](#)
- [Drawio](#)

Next step

If you have successfully completed all steps, you can proceed to the next step:

- From BlueSpice 4.4: [OpenSearch](#).
- Up to BlueSpice 4.3: [Elasticsearch](#).

MariaDB on Linux

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2	Create database user for BlueSpice	10
3	Next Step	10

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

Installing MariaDB

Install MariaDB via Aptitude:

```
apt update; \  
apt install mariadb-server mariadb-client; \  
apt clean
```

Create database user for BlueSpice

After installation, immediately create a database user for MariaDB directly with the following command:

```
mysql -e "GRANT ALL ON bluespice.* TO 'bluespice'@'127.0.0.1' IDENTIFIED BY '<a  
password of your choice>';"
```

Important! Remember the username and password for later parts of the Installation.

Next Step

If you have completed all steps successfully, you can proceed to the next step "[Jetty](#)".

Memcached on Linux

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Note: Memcached is a cache server to improve the performance of your BlueSpice installation. It is not required for the actual operation of BlueSpice. The steps listed here are therefore optional.

Installation

Install Memcached with Aptitude:

```
apt-get update; \  
apt-get -y install memcached; \  
apt-get clean
```

Configuration

Open the file containing the memcached configuration (for example, /etc/memcached.conf on Debian / Ubuntu). Find the '-m' argument there and increase the available memory according to your server's capabilities:

```
-m 512
```

Save and close the file and restart memcached with `service memcached restart`.

Next step

If you have completed all steps successfully and want to install BlueSpice pro, proceed to the next step "[Mathoid](#)". If you want to install BlueSpice free, you can now continue with [Installing BlueSpice](#).

Setup:Installation Guide/System Preparation/Linux /OpenSearch



OpenSearch is available from BlueSpice 4.4. Earlier versions of BlueSpice 4 support [Elasticsearch](#).

Installation

Follow the official installation instructions on [opensearch.org](https://opensearch.org/docs/latest/install-and-configure/install-opensearch/debian/). Example for Debian:

<https://opensearch.org/docs/latest/install-and-configure/install-opensearch/debian/>

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](#)".

Installing PhantomJS

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Note: PhantomJS is a so-called headless browser that can render screenshots of web pages. This is required for the web page preview in Advanced Search and the Recent Changes Overview in your BlueSpice installation. These are functionalities of BlueSpice pro. For this purpose, the steps listed here are required.

Important! In this documentation, we use PhantomJS version 2.1.1. This is just an example of the latest version that you can download at the time of installation.

Download

Go to the [download page of PhantomJS](#) and download the 64-bit version for Linux. Transfer the file to your server.

Installation

Unpack the downloaded bz2 archive on the server with the command `tar xjf phantomjs-2.1.1-linux-x86_64.tar.bz2`. In the unpacked folder `phantomjs-2.1.1-linux-x86_64`, you will find another folder with the name `bin`. Within this folder is the file `phantomjs`. Copy this file into the `/usr/local/bin` folder. Then adjust the rights of the file:

```
chown root:staff /usr/local/bin/phantomjs; \  
chmod +x /usr/local/bin/phantomjs
```

Completing the system preparation

If you have completed all steps successfully, you can now continue with [installing BlueSpice](#).

Installing Python on Linux

Contents

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2 Next step	14

Important! Python is required to render the MediaWiki extension "SyntaxHighlight", which is part of BlueSpice. The steps listed here are required.

Installation

Install Python via Aptitude:

```
apt-get update; \  
apt-get -y install python3; \  
apt-get clean
```

Next step

If you have successfully completed all steps, you can proceed to the next step " [Memcached](#)".

Installing Texvc

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Note: Texvc is a program that reads in mathematical expressions. It is needed for the correct operation of the MediaWiki extension "Math". These are functionalities of BlueSpice pro. For this purpose, the steps listed here are required for BlueSpice pro.

Prerequisite

A prerequisite for installing Texvc is the installation of some external packages in your Linux distribution with the following commands:

```
apt update; \  
apt install dvipng \  
g++ \  
gcc \  
make \  
ocaml-nox \  
texlive-latex-base \  
texlive-latex-extra; \  
apt clean
```

Installation

To install Texvc, go to the codebase of your BlueSpice sources in the folder `extensions/Math/math`. Here, execute the command `make`. Texvc will now be compiled.

After finishing the process, move the `texvc` file that was just created in the same folder to `/usr/local/bin` and make it executable by the following commands.

```
chown root:staff /usr/local/bin/math; \  
chmod +x /usr/local/bin/math
```

Next Step

If you have completed all steps successfully, you can proceed to the next step "[PhantomJS](#)".

Setup:Installation Guide/System Preparation/Windows

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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The .NET Framework 3.5 is required by some of the applications that will be installed in the following chapters. The steps listed here are mandatory.



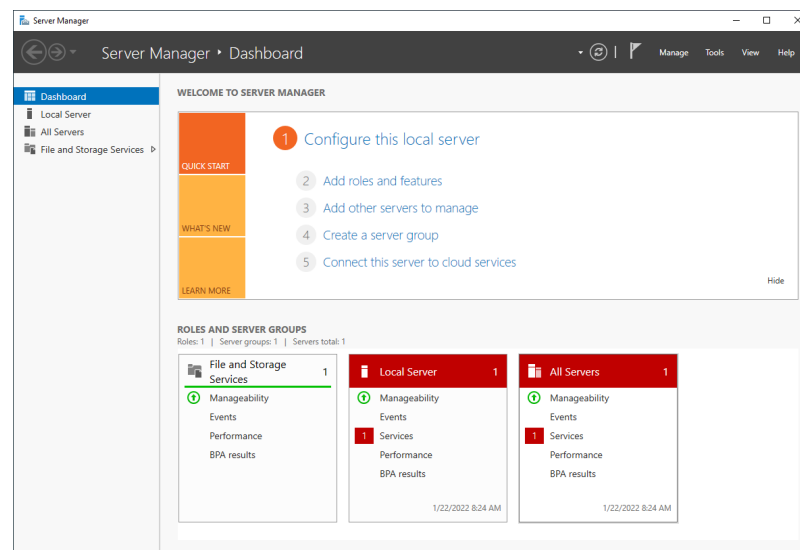
The .NET Framework setup may fail if your server is in a domain and accessing a WSUS.

One solution would be to temporarily take the server out of the domain for this part of the Setup or [follow the documentation steps from this external source](#).

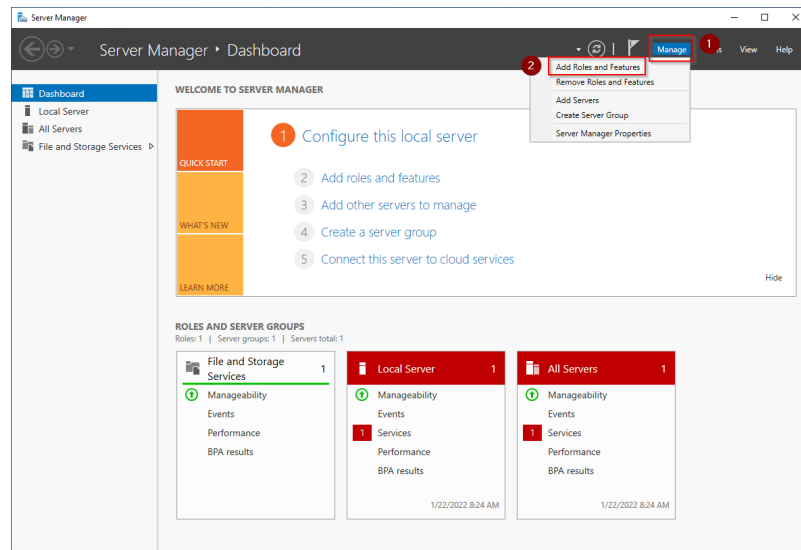
Open the Server Manager and the roles Manager

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".

You are now looking at the following view:



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

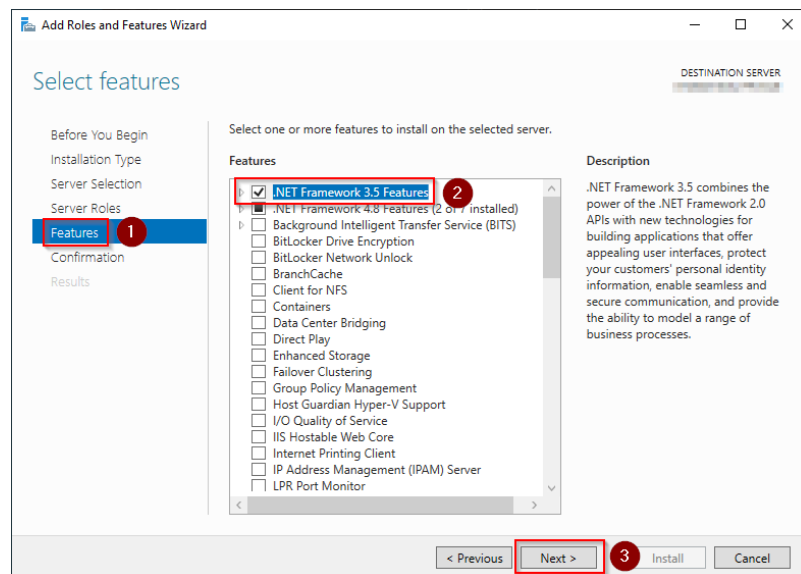


Installation of the framework in the Roles Manager

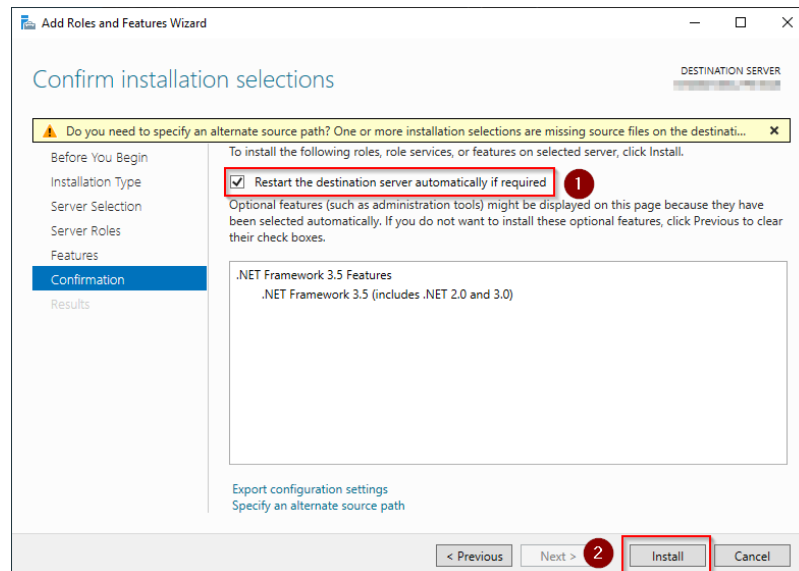
You are now in the Roles Manager (Window "Add Roles and Features Wizard").

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

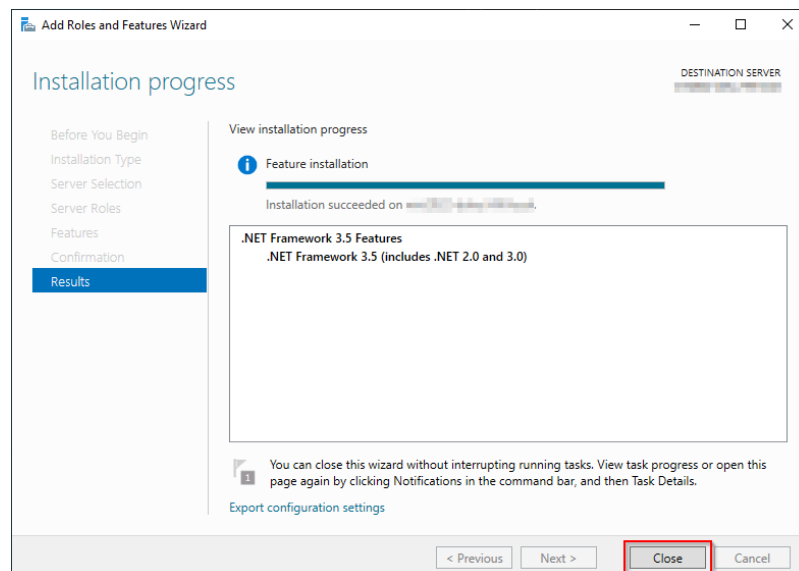
Activate the checkbox ".NET Framework 3.5-Funktionen" (2). After that, proceed to the next step (3):



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



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



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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------------------	----

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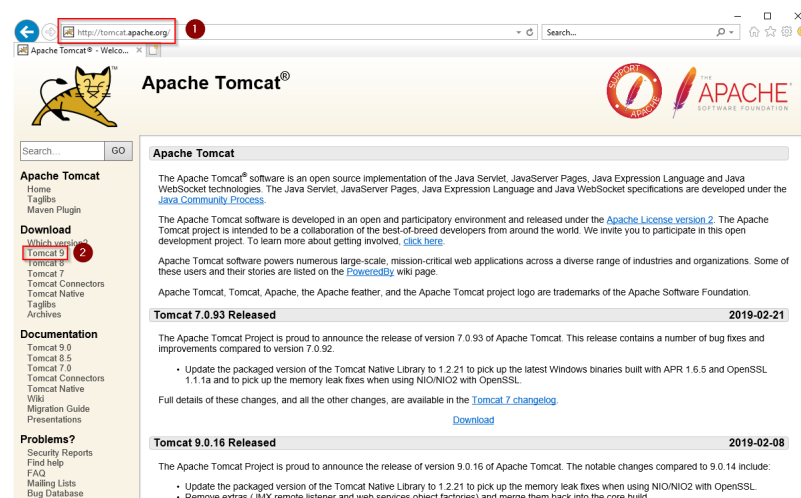
Apache Tomcat is required for the PDF export. The following steps are optional and only required if you want to use this service in your BlueSpice installation.



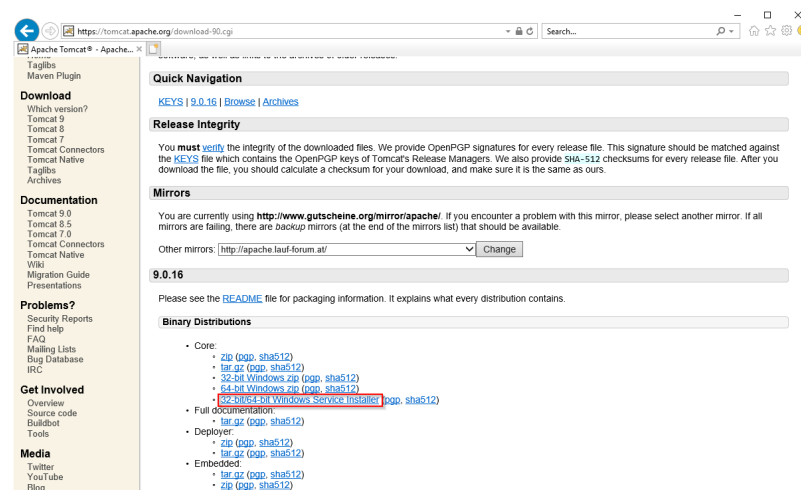
Operation of Apache Tomcat requires [OpenJDK](#). If you have not installed it, follow the link above.

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"



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.

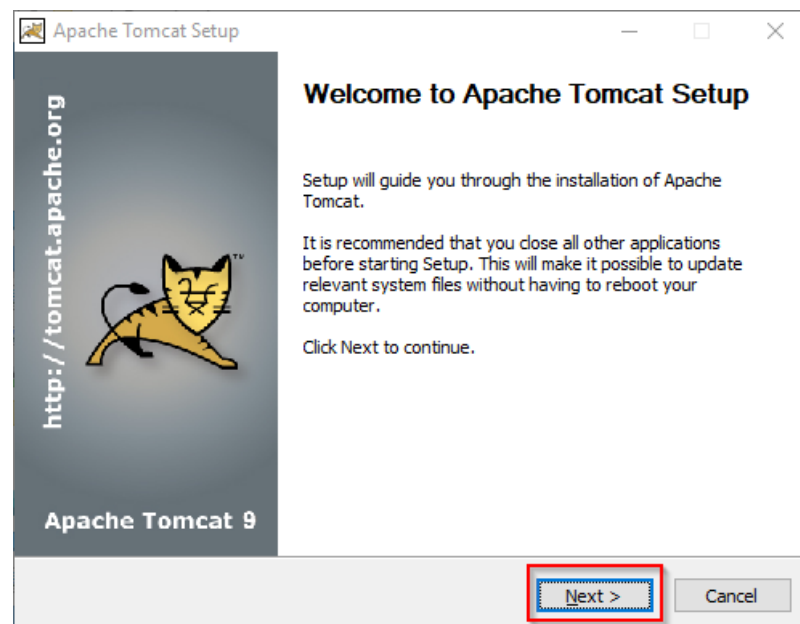


This guide uses version 9.0.16 of Apache Tomcat and is just an example of the latest version that you can download at the time of installation.

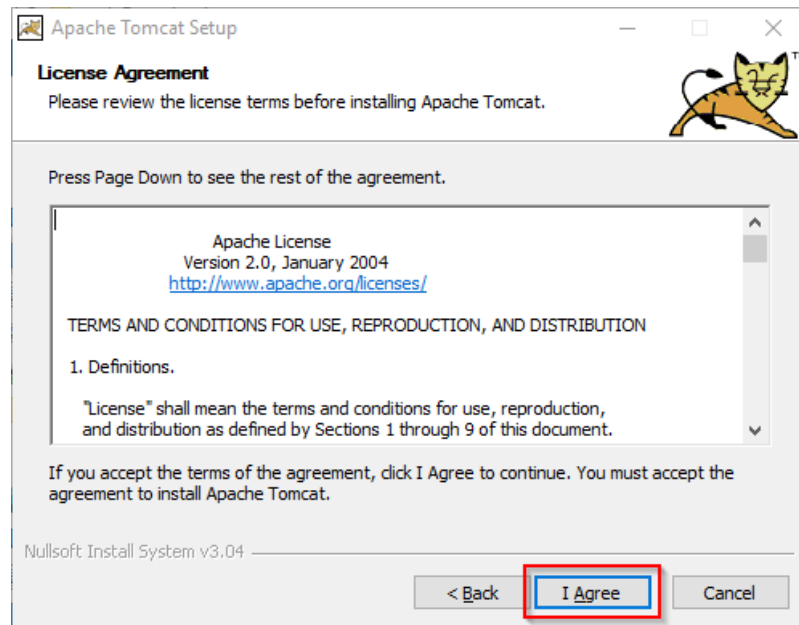
Installing Apache Tomcat

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

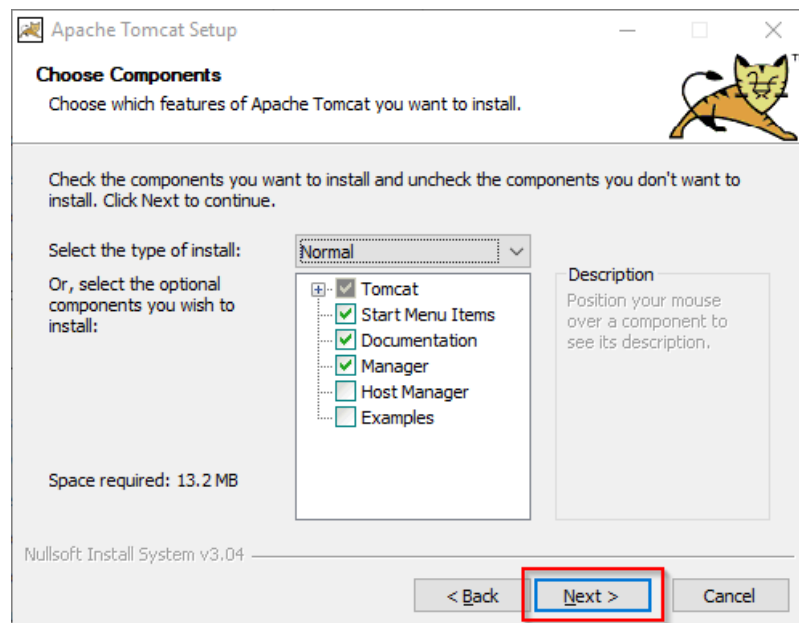
Start the installation by clicking "Next >":



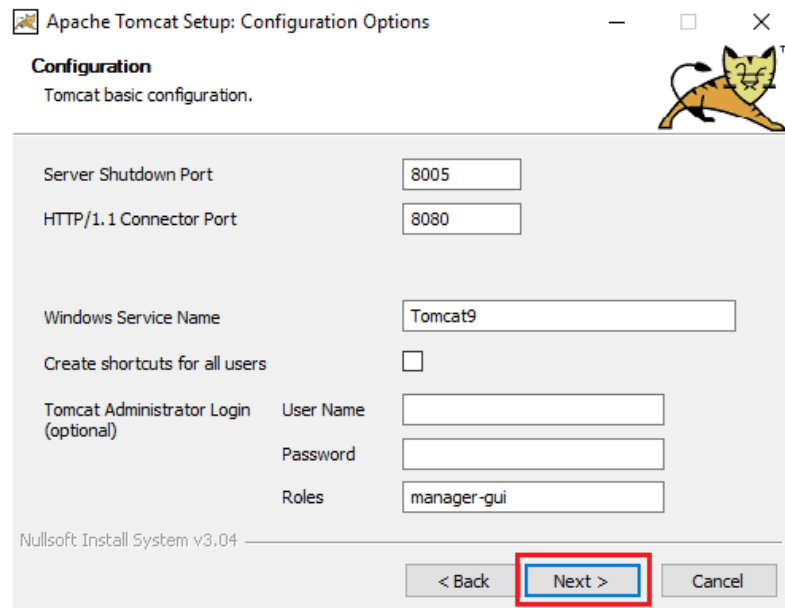
Confirm the license agreement by clicking "I Agree":



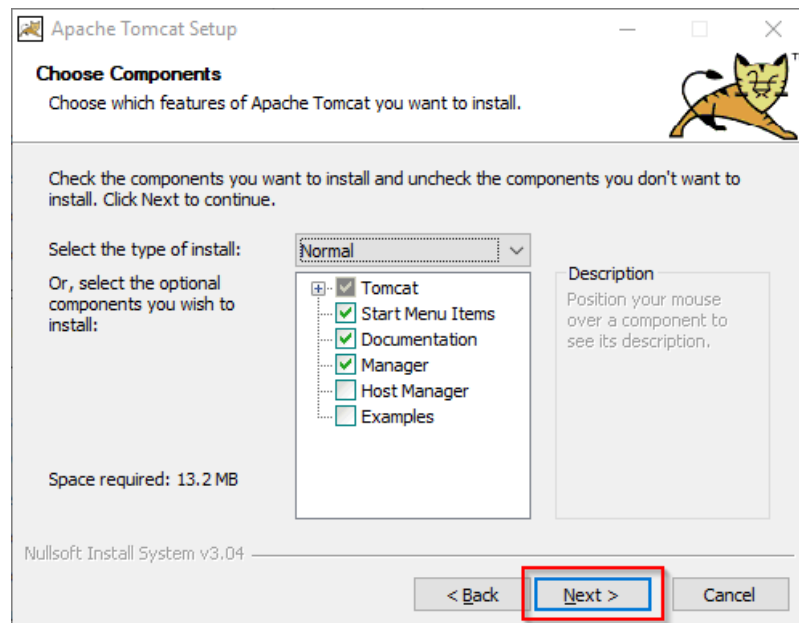
Click "Next >":



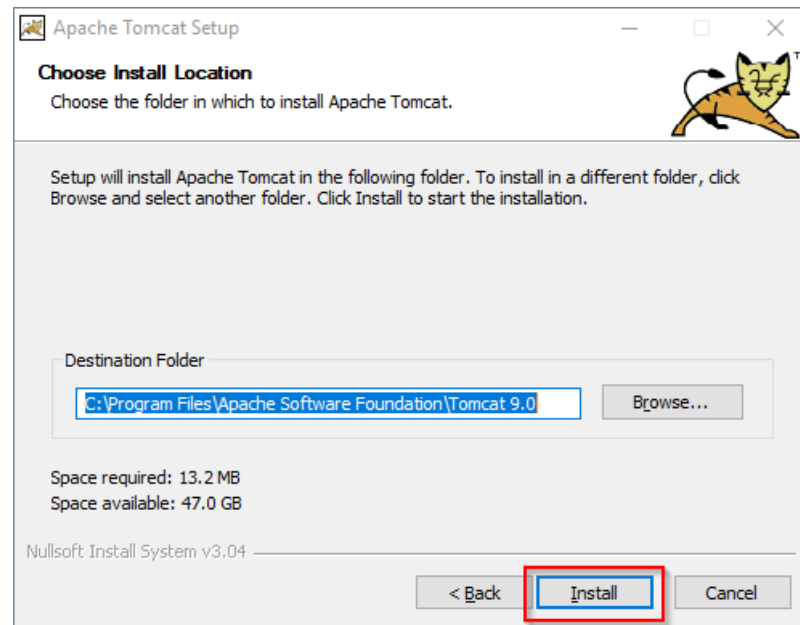
Click "Next >" again:



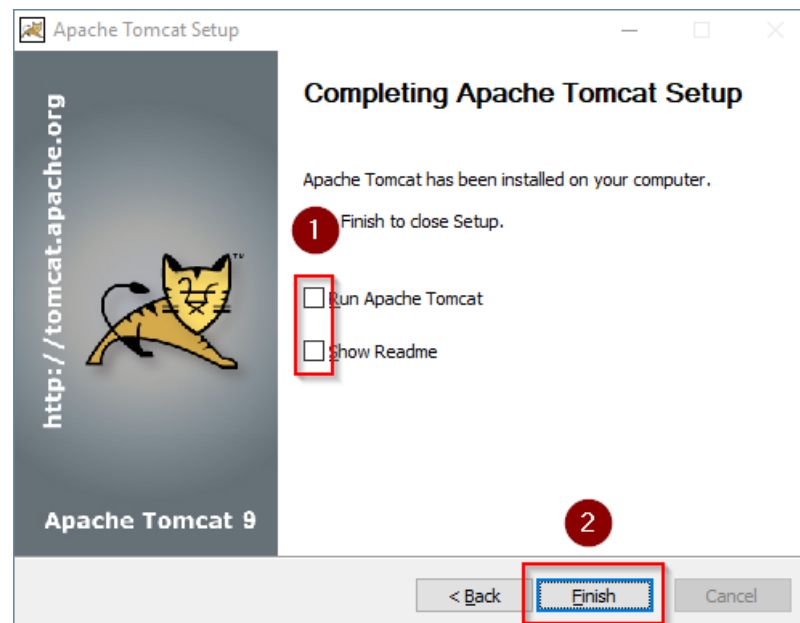
Select (1) the home directory of your [OpenJDK Installation](#) (2) and click "Next>" (3):



Start the Tomcat Installation:



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



Configuring Apache Tomcat

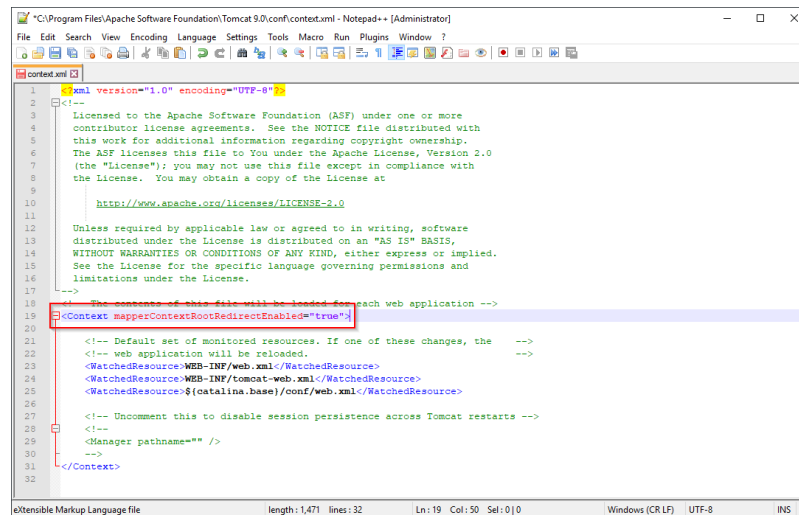
Change to the installation directory of Tomcat. By default, you can find it at `C:\Program Files\Apache Software Foundation\Tomcat 9.0\conf`.

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

```
<Context>
```

with

```
<Context mapperContextRootRedirectEnabled="true">
```



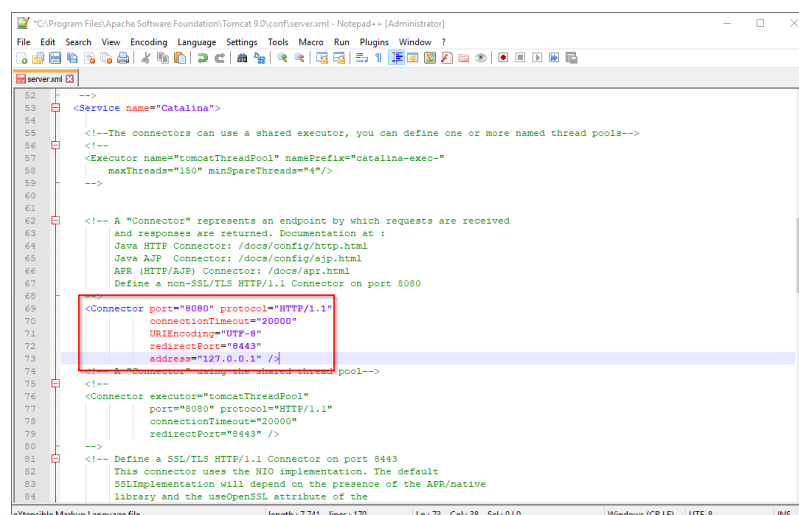
Save and close the file.

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"
... />
```

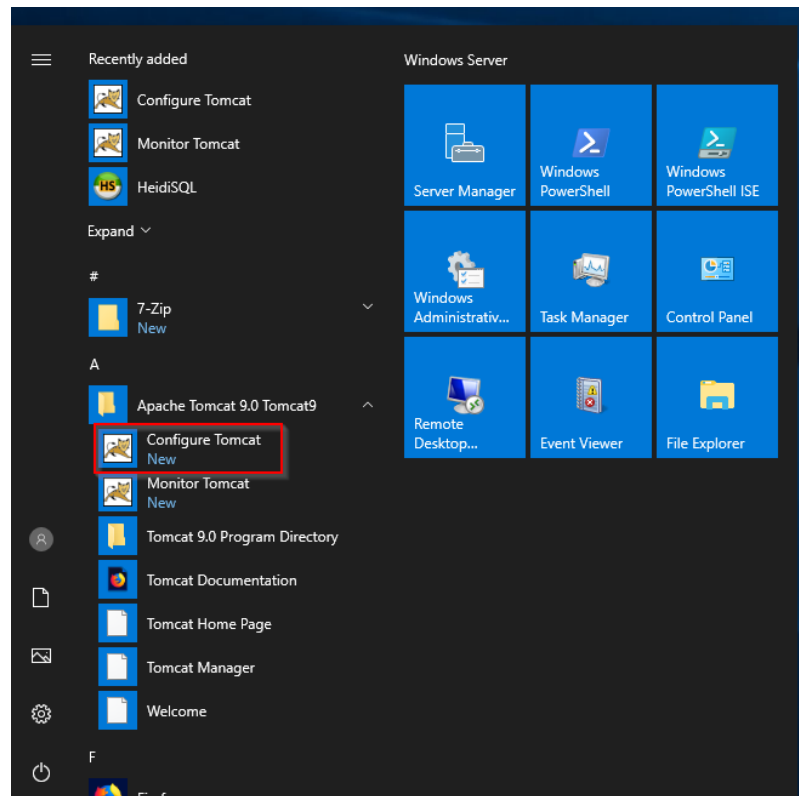
looks like this:

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

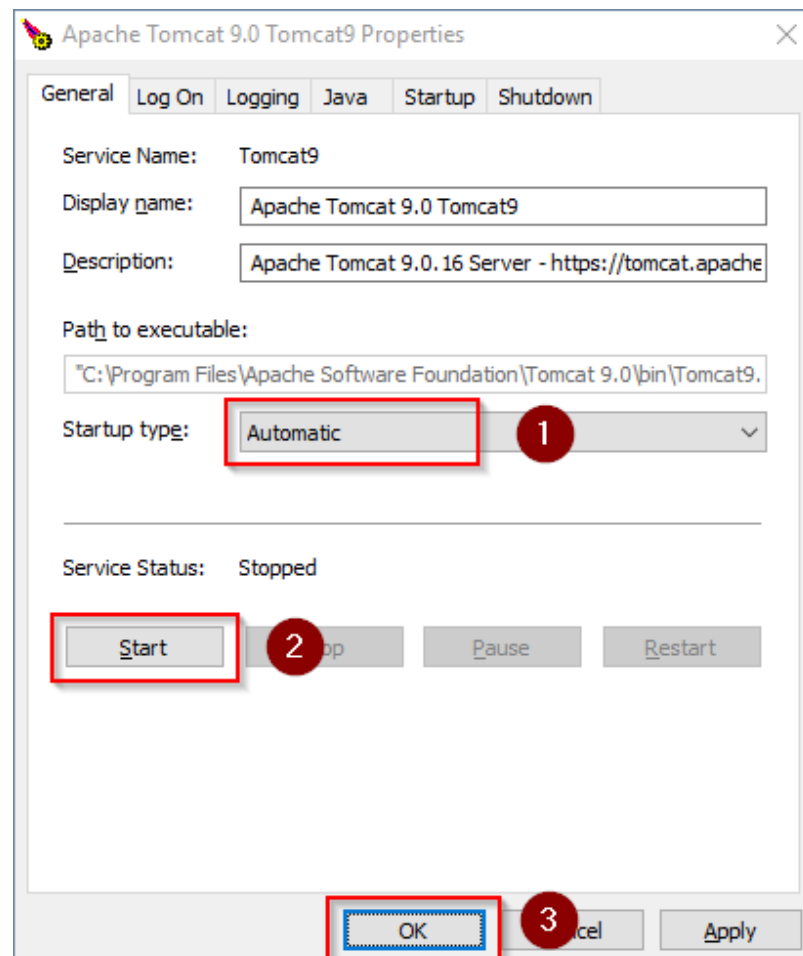


Save and close the file.

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



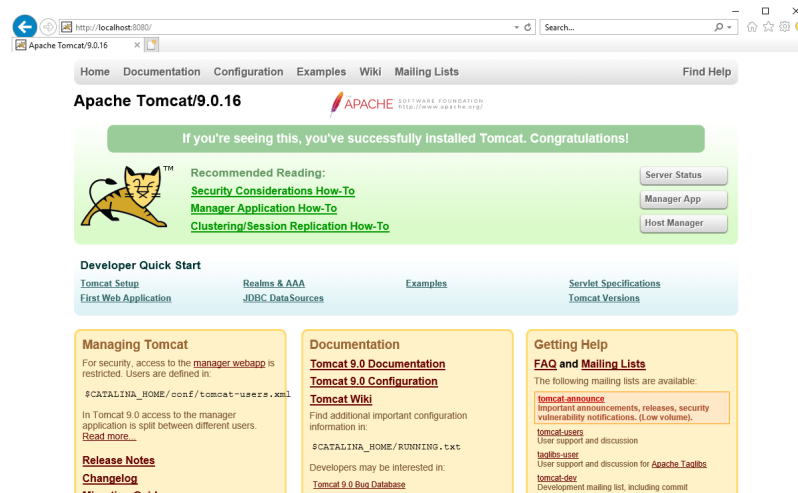
Set "Startup type" to "Automatic" (1) and start Tomcat (2). Then exit the configuration console (3):



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:



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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6 Next step 34



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-<Versionsnummer>.zip> also bspw. <https://artifacts.elastic.co/downloads/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



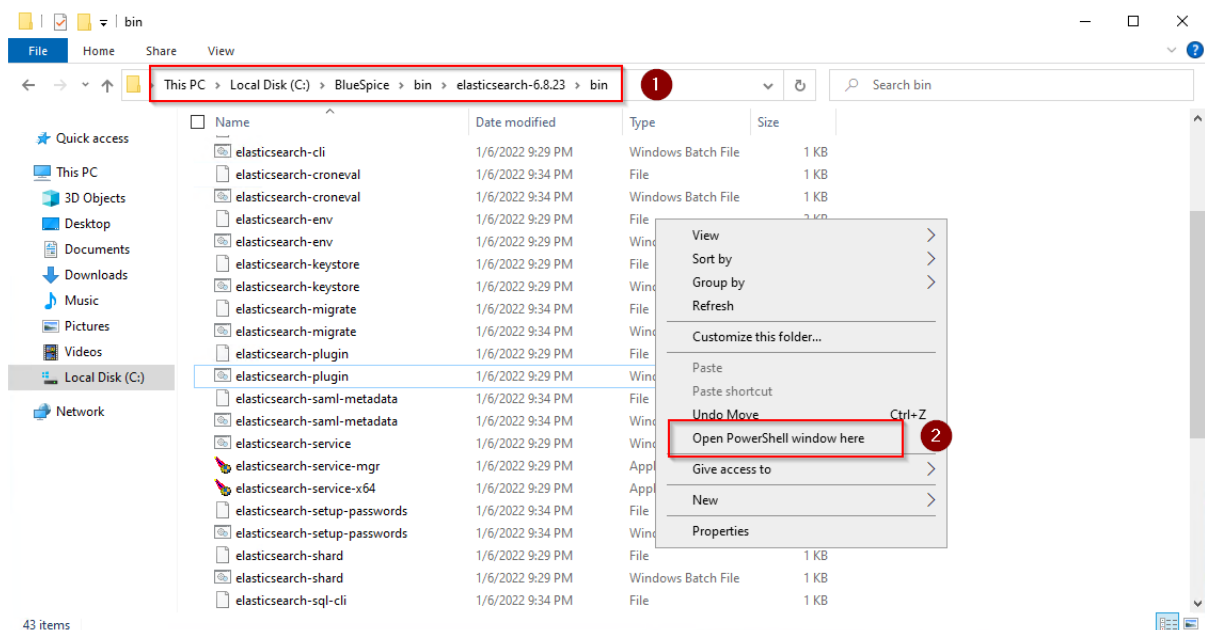
this reason, Elasticsearch is unpacked at this point in the folder C:\bluespice\bin\elasticsearch-6.8.23. If you have individual wishes, adjust these paths according to your own understanding.

Installing the plugin ingest-attachment

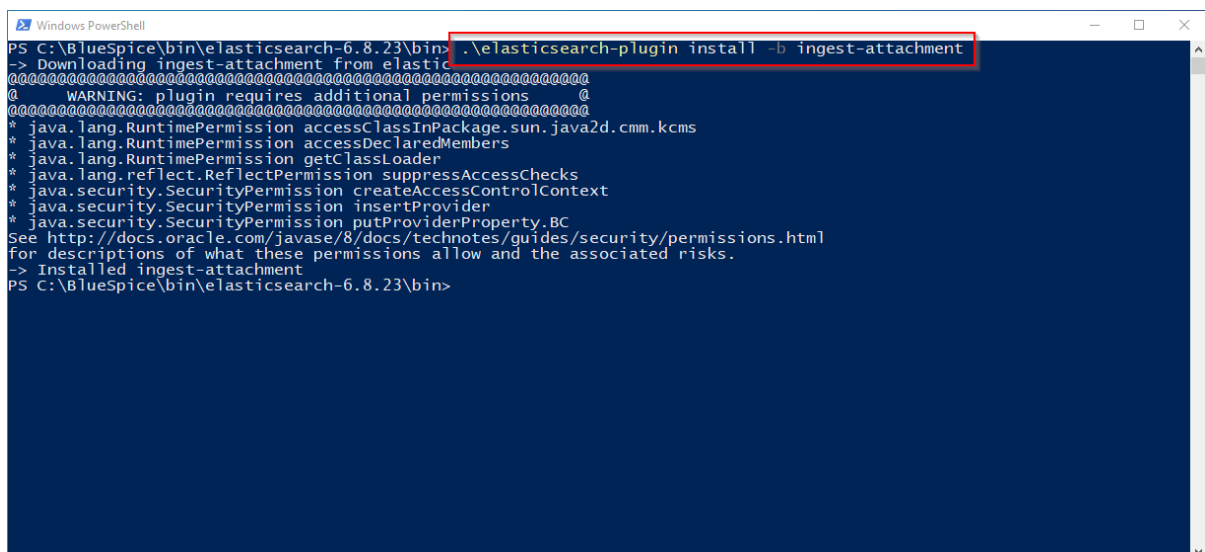
Change to the directory "C:\bluespice\bin\elasticsearch-6.8.23\bin" (1).

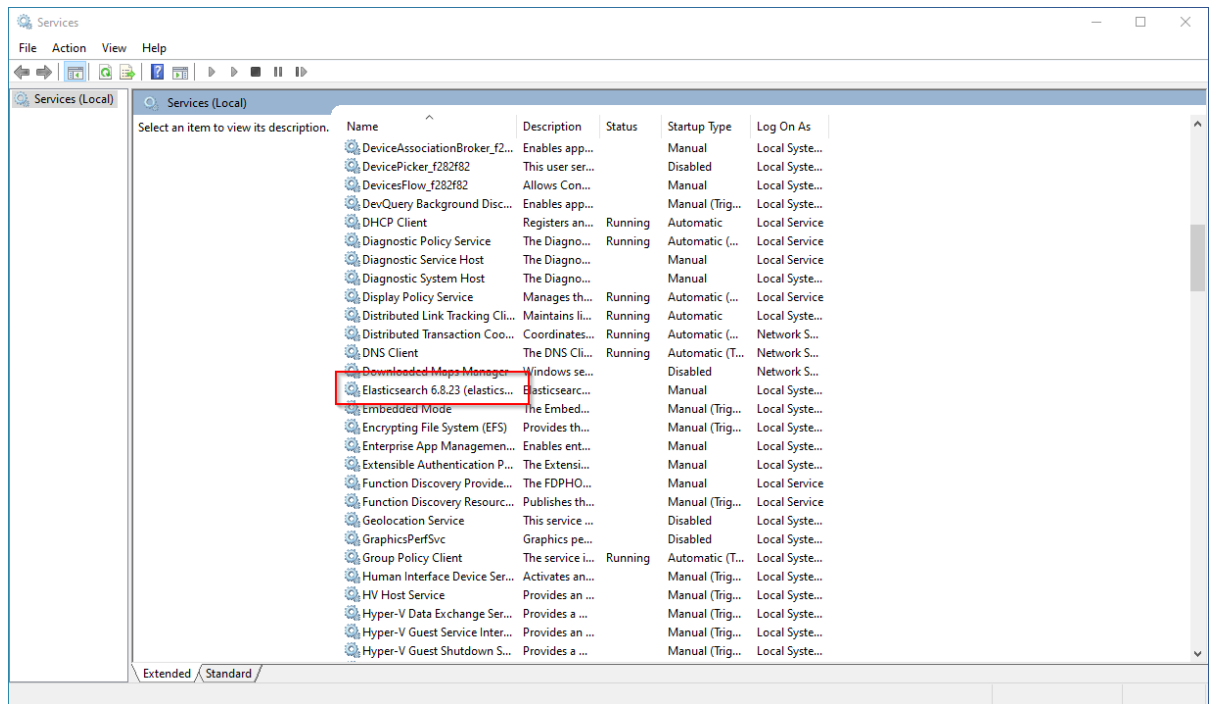
Right-click on a free area of the Explorer window with the Shift-key pressed.

Click "Open PowerShell window here" (2):



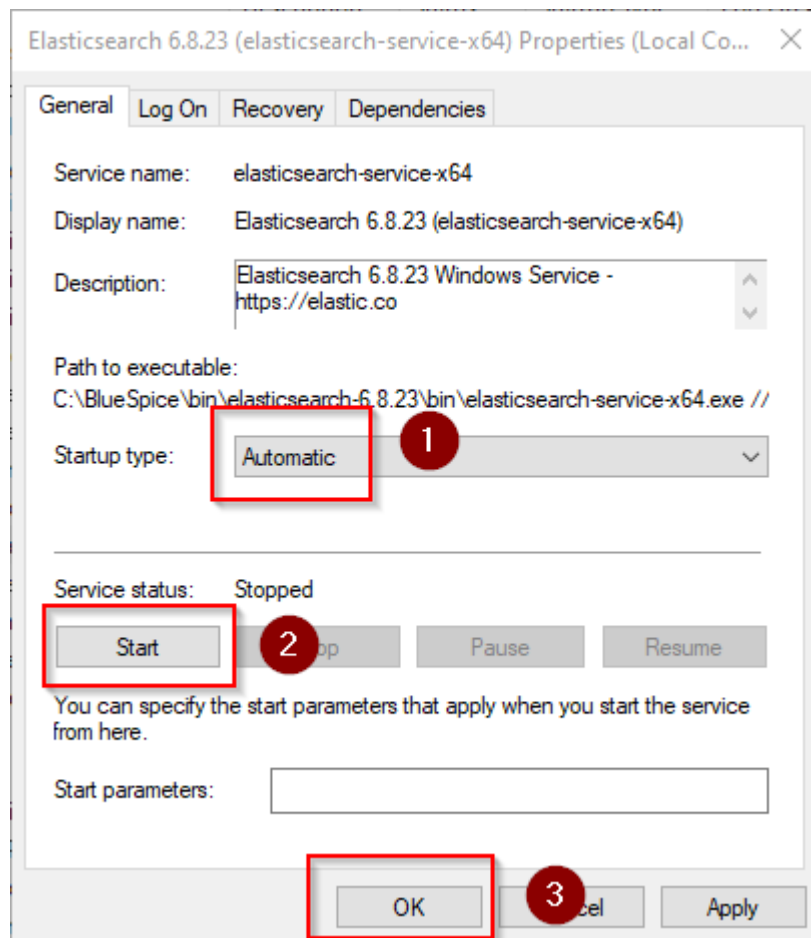
Execute the command ". \elasticsearch-plugin install -b ingest-attachment":





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

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



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

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1 Introduction	35
2 Open the Server Manager and the Roles Manager	35
3 Installation of IIS in the Roles Manager	36
4 Next step	40



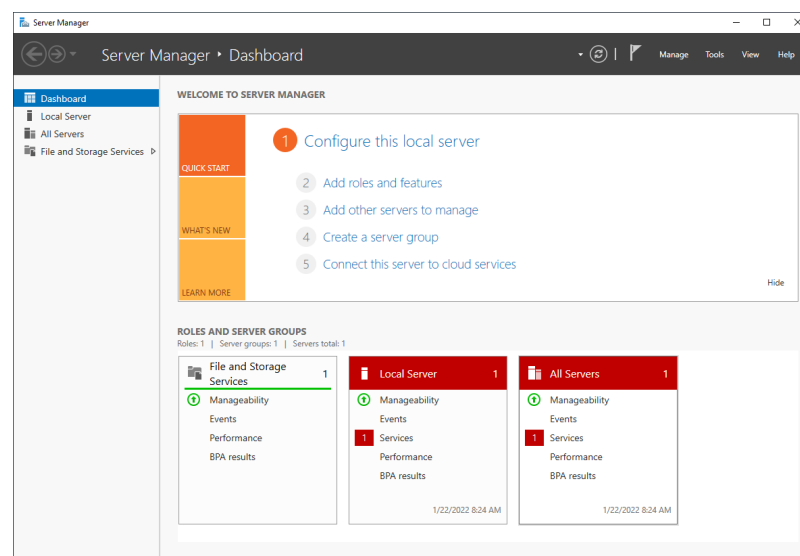
The web server delivers your BlueSpice installation to the users' browsers. Without a web server, BlueSpice cannot be used. The steps listed here are required.

Introduction

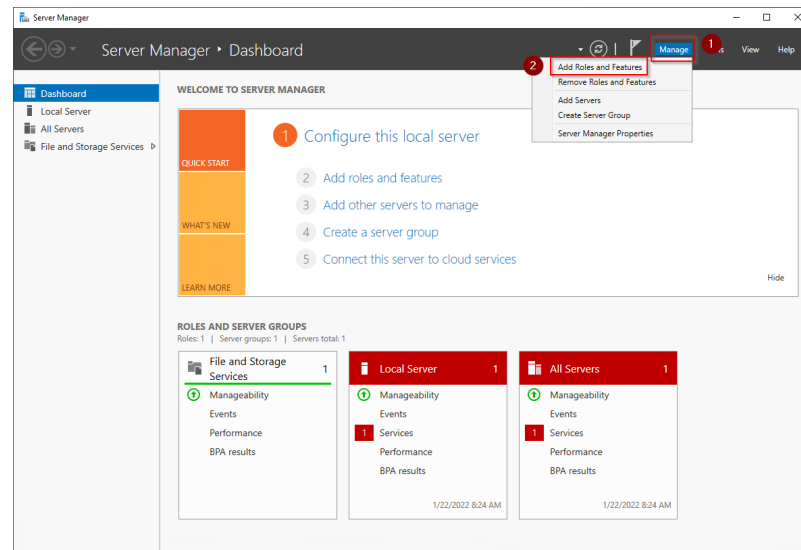
We recommend to use the most system-optimized software possible for a live operation of BlueSpice both under Linux and under Windows. For this reason, the documentation of an installation of Apache (XAMP) under Windows is omitted. This chapter lists the steps that are necessary to install the Microsoft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



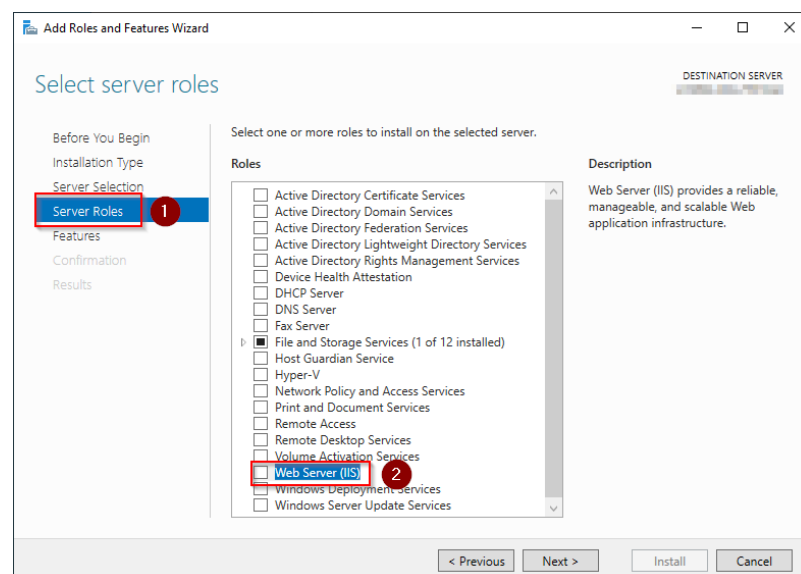
Click "Manage" (1) and then click "Add Roles and Features" (2):



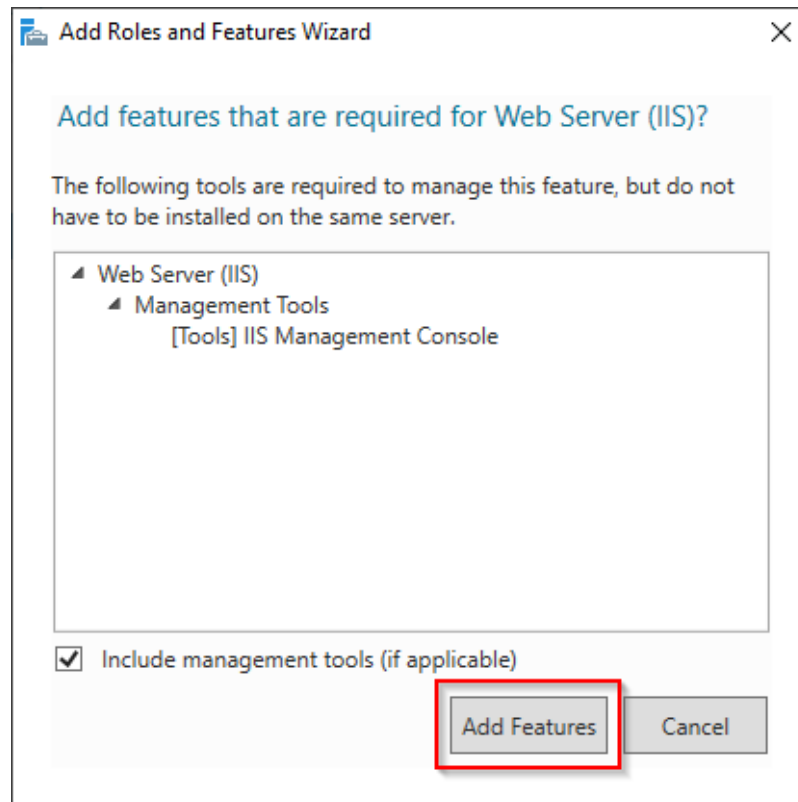
Installation of IIS in the Roles Manager

Sie befinden sich jetzt im Roles manager.

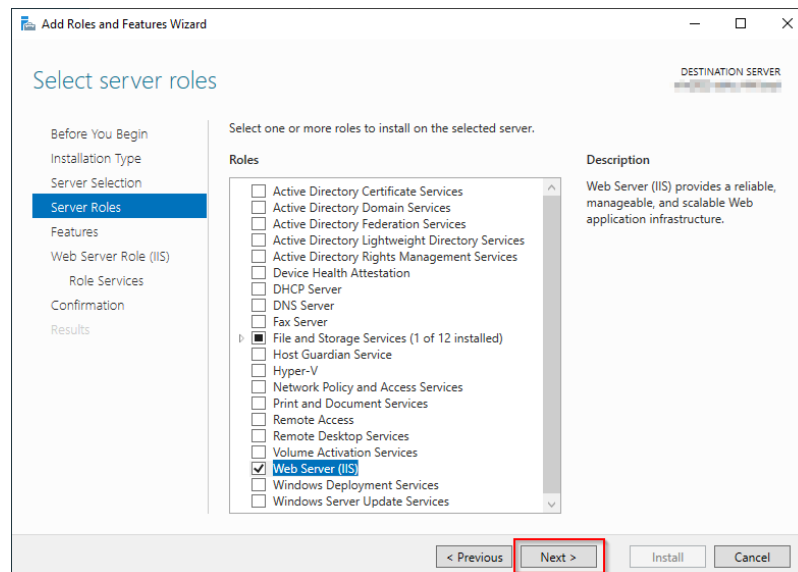
Click "Next >" until you reach the "Server Roles" area (1). There, you **activate** the role "Web Server (IIS)" (2):



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

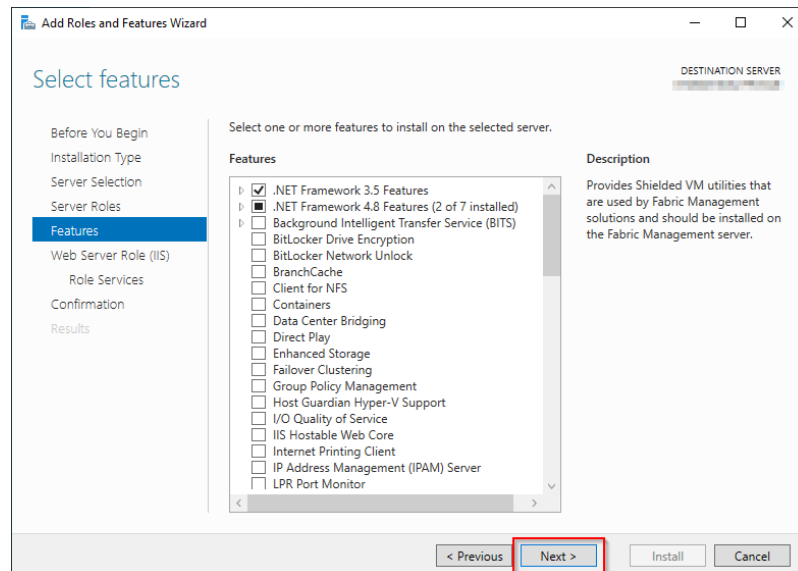


Click "Next >":



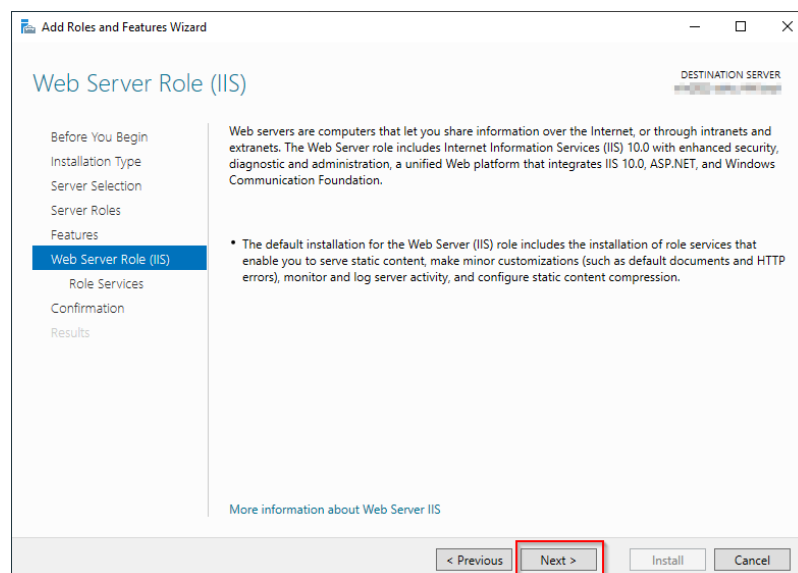
You are now in the section "Features".

Click "Next >":



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

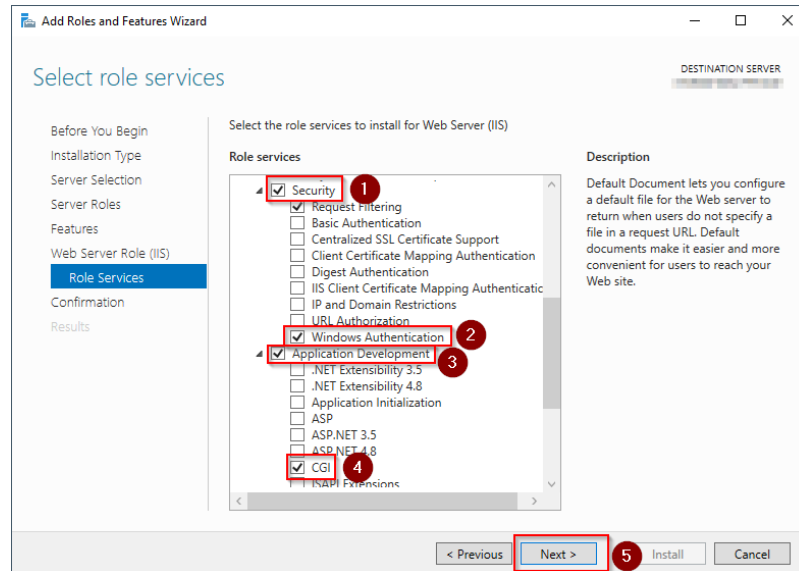
Click "Next>":



You are now in the section "Role services".

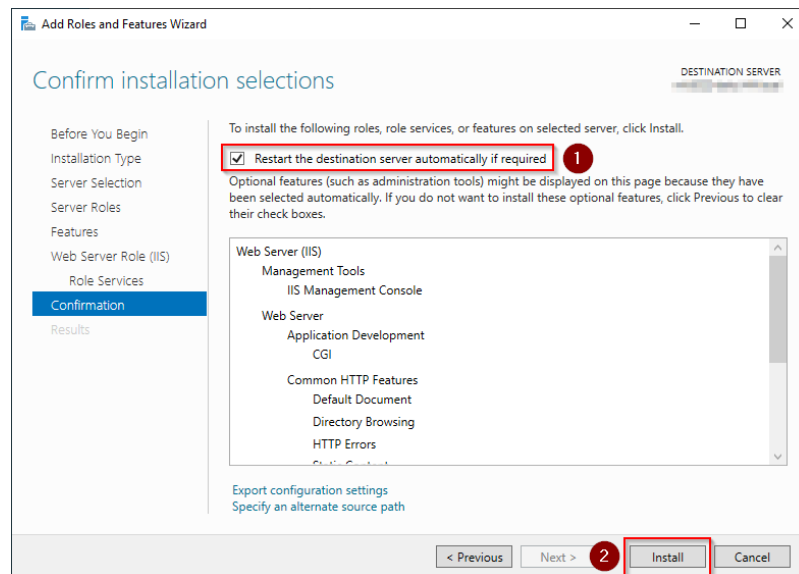
Activate the option "Windows-Authentication" (2) under "Security" (1) and the option "CGI" (4) under "Application development" (3).

Click "Next >" (5):

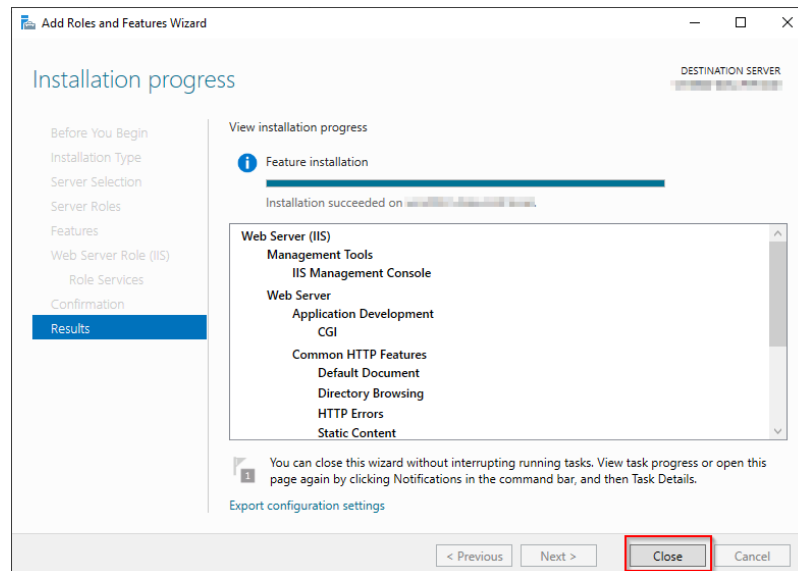


You are now in the "Confirmation" section.

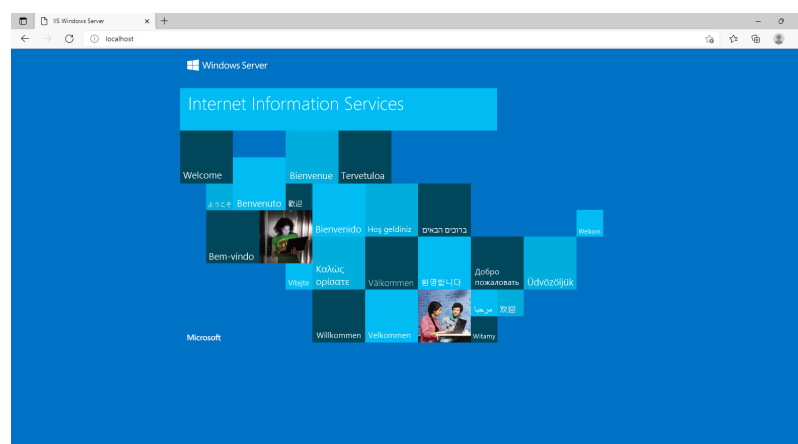
Activate the option "Restart the destination server automatically if required" (1) and **click** "Install" (2):



Click "Close" once the installation has been completed.



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

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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).

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

The screenshot shows the MariaDB Server download page. The page has a navigation bar with links: Download, Documentation, Contribute, Server Fest, Events, Sponsor, Blog, Planet MariaDB, and About. Below the navigation bar, there is a search bar and a section for 'Latest MariaDB releases' with a list of versions: 10.8.2 (RC), 10.7.3, 10.6.7, 10.5.15, 10.4.24, 10.3.34, 10.2.43. A 'Vote on your current version' link is also present. The main content area is titled 'MariaDB Server' and includes a 'Download MariaDB Server' section with links to REST API, Release Schedule, Reporting Bugs, and View all releases for: MariaDB Server, MariaDB Galera, Connector/C, Connector/J, Connector/ODBC, Connector/Python, and Connector/Node.js. The download form includes a 'MariaDB Server Version' dropdown menu (1) set to 'MariaDB Server 10.7.3', an 'Operating System' dropdown menu (2) set to 'Windows', an 'Architecture' dropdown menu (3) set to 'x86_64', a 'Package Type' dropdown menu (4) set to 'MSI Package', and a 'Download' button (5). A 'Mirror' dropdown menu is also present. The page also features a 'Subscribe to our YouTube channel' button and a 'More!' button.

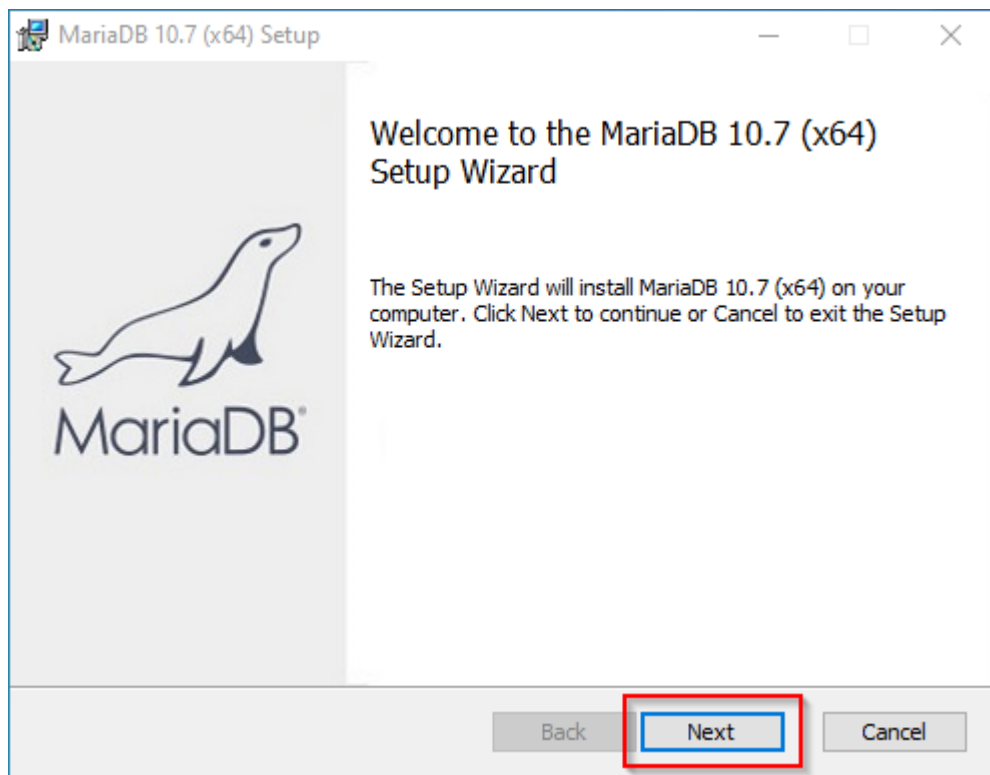


Im Folgenden wird die MariaDB-Version 10.7.3 verwendet und dient nur beispielhaft für die aktuellste Version 10.7.x, die Sie zum Zeitpunkt Ihrer Installation herunterladen können.

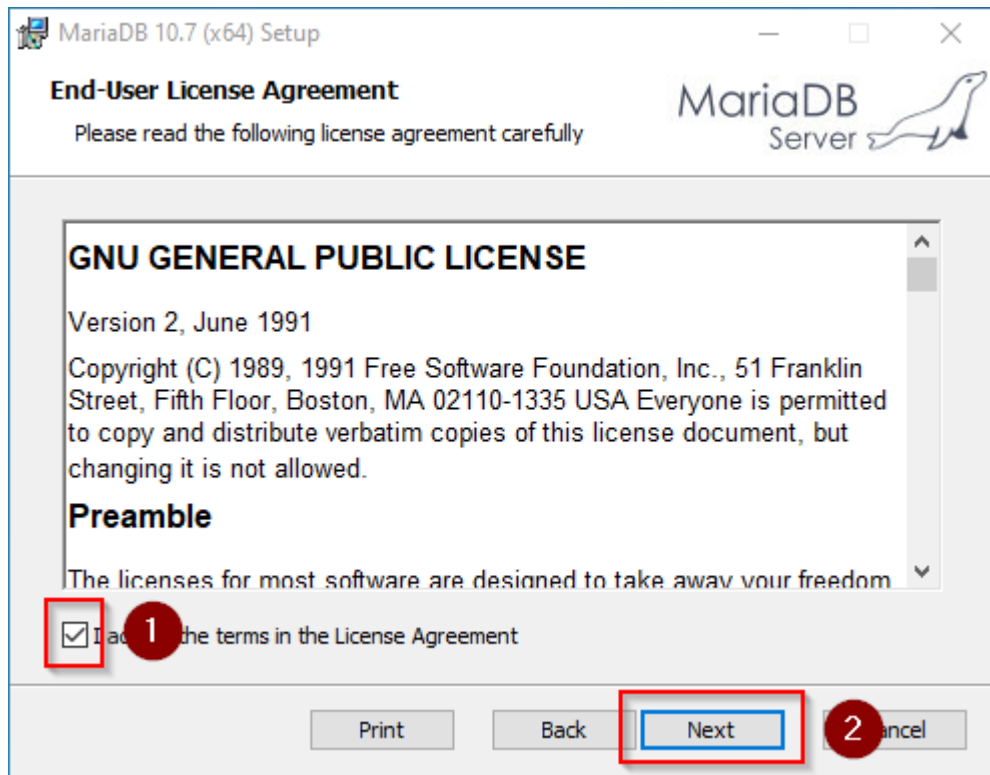
Installation

Open the MSI file that you have just downloaded.

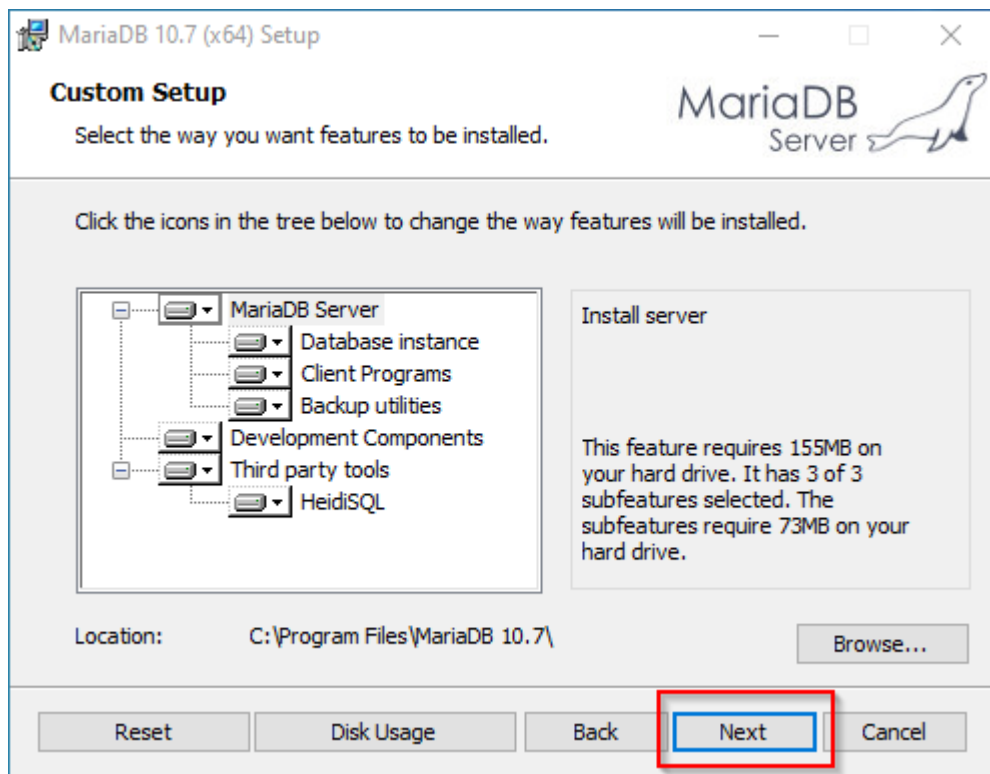
Click "Next" to start the installation:



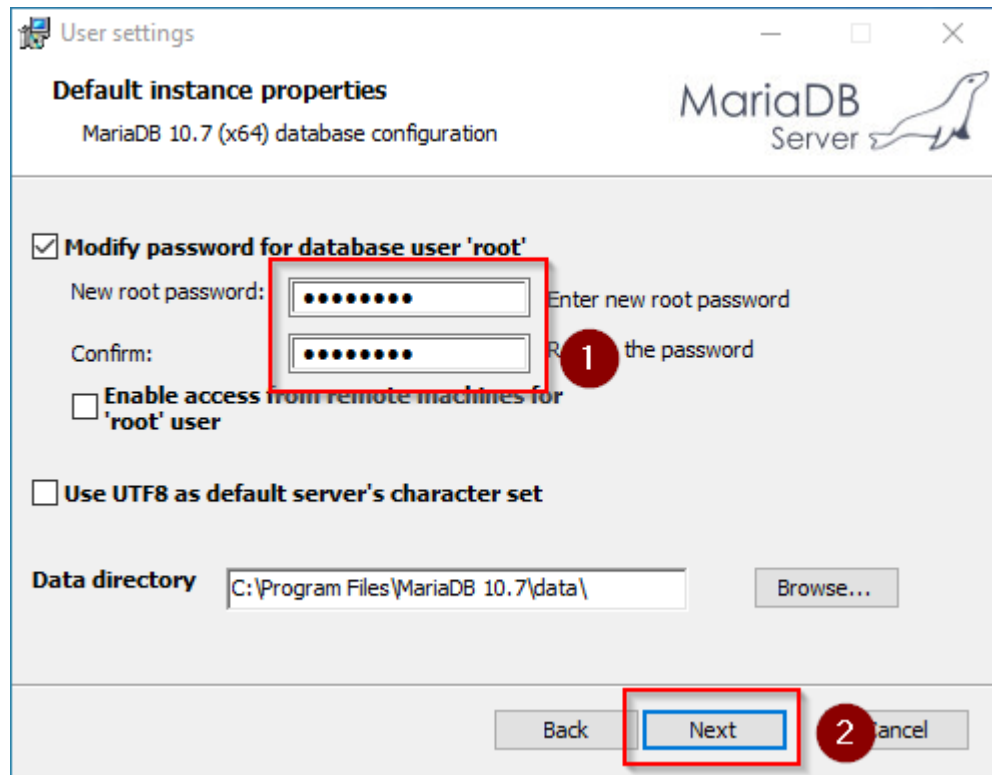
Confirm the dieLicense Agreement (1) and **click** "Next" (2):



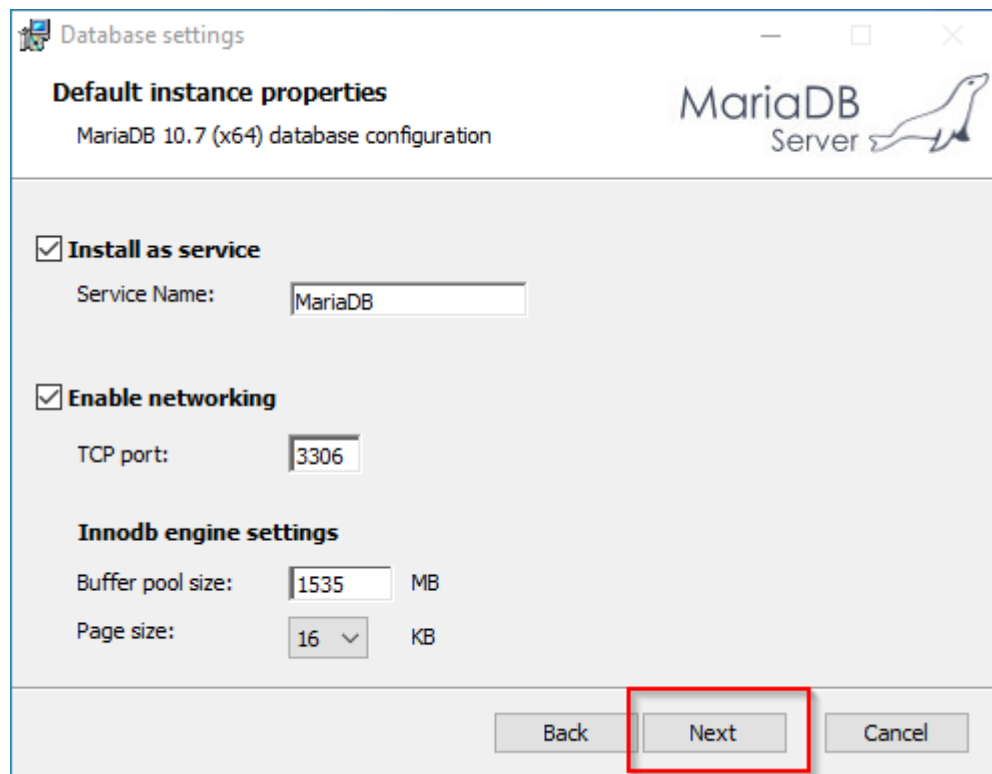
Click "Next" to confirm the installation setup:



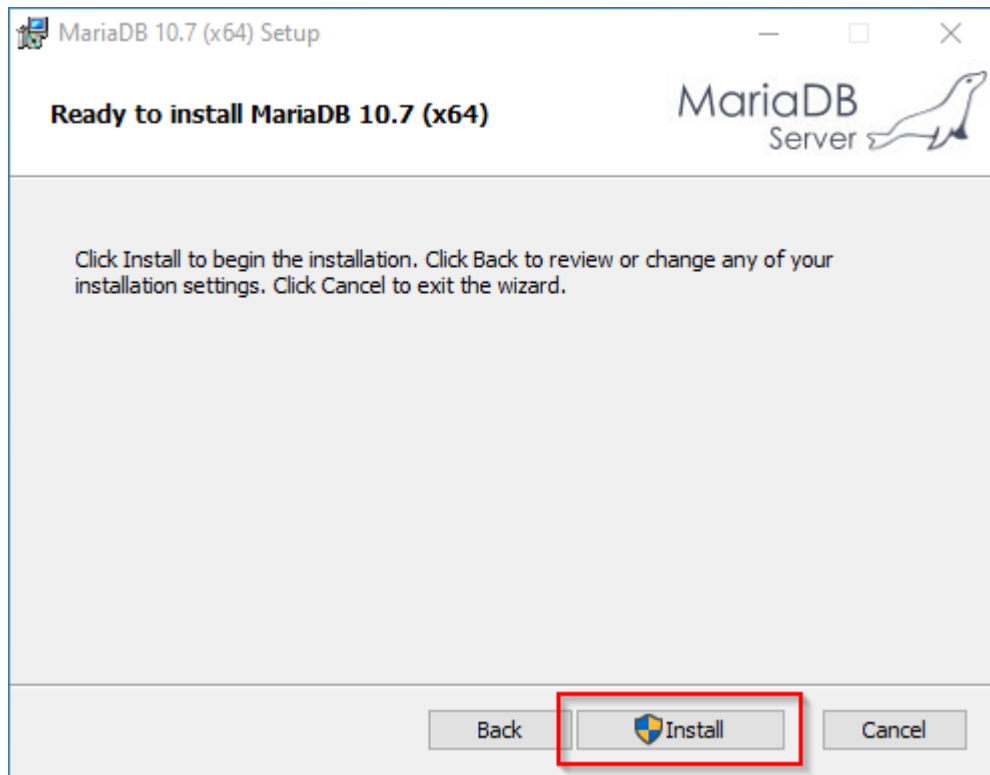
Enter a new root password for the administrative ("root") user of the database server (1) and **click** "Next" (2):



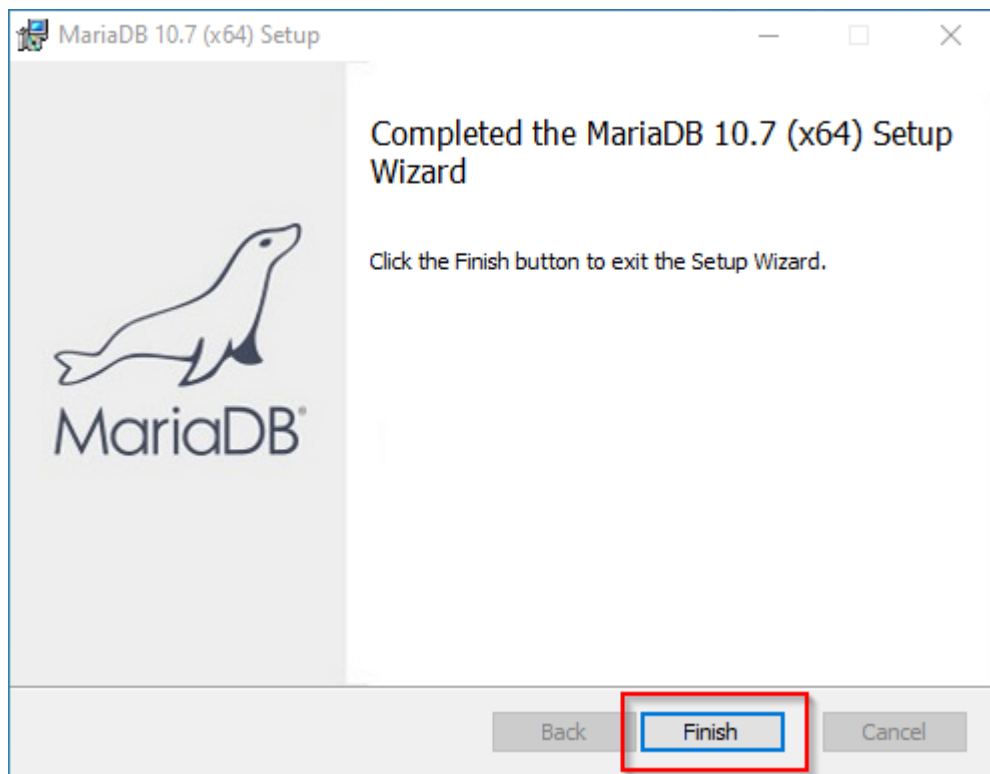
Click "Next" in the *Default instance properties* window:



Click "Install" to start the installation:



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

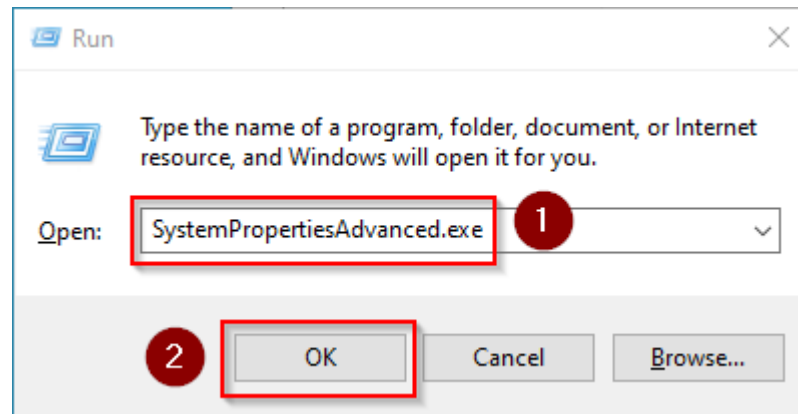


Setting the environment variable

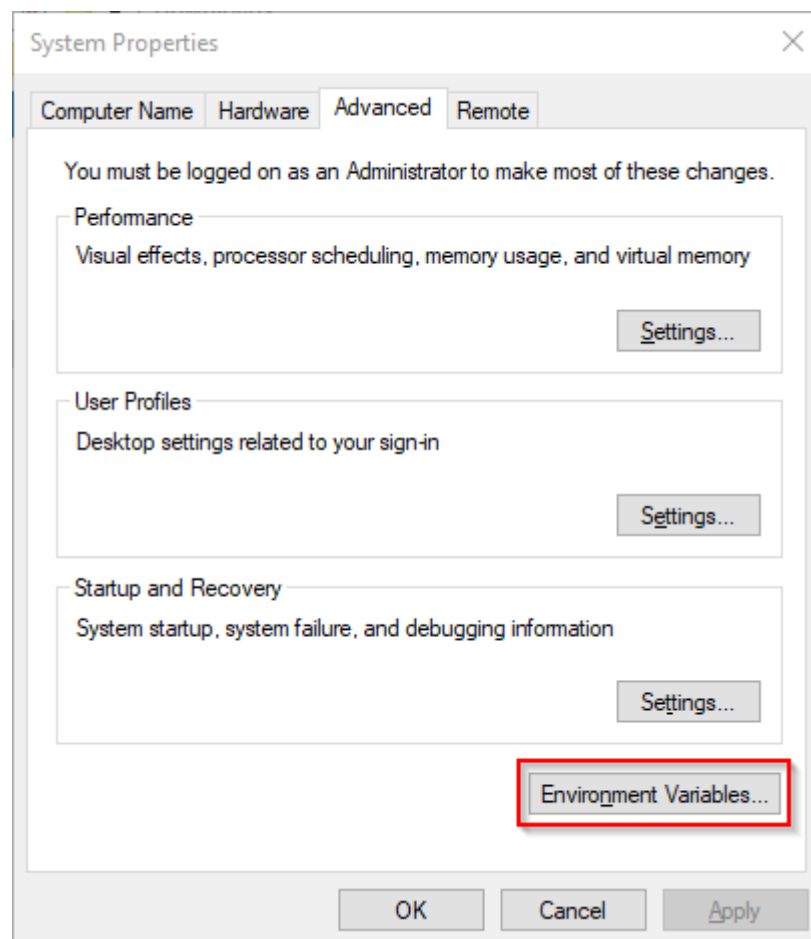
To be able to use MariaDB on the Windows command line without any problems, it is necessary to configure an environment variable in Windows. To do this, follow these steps:

Enter the key combination Windows+R.

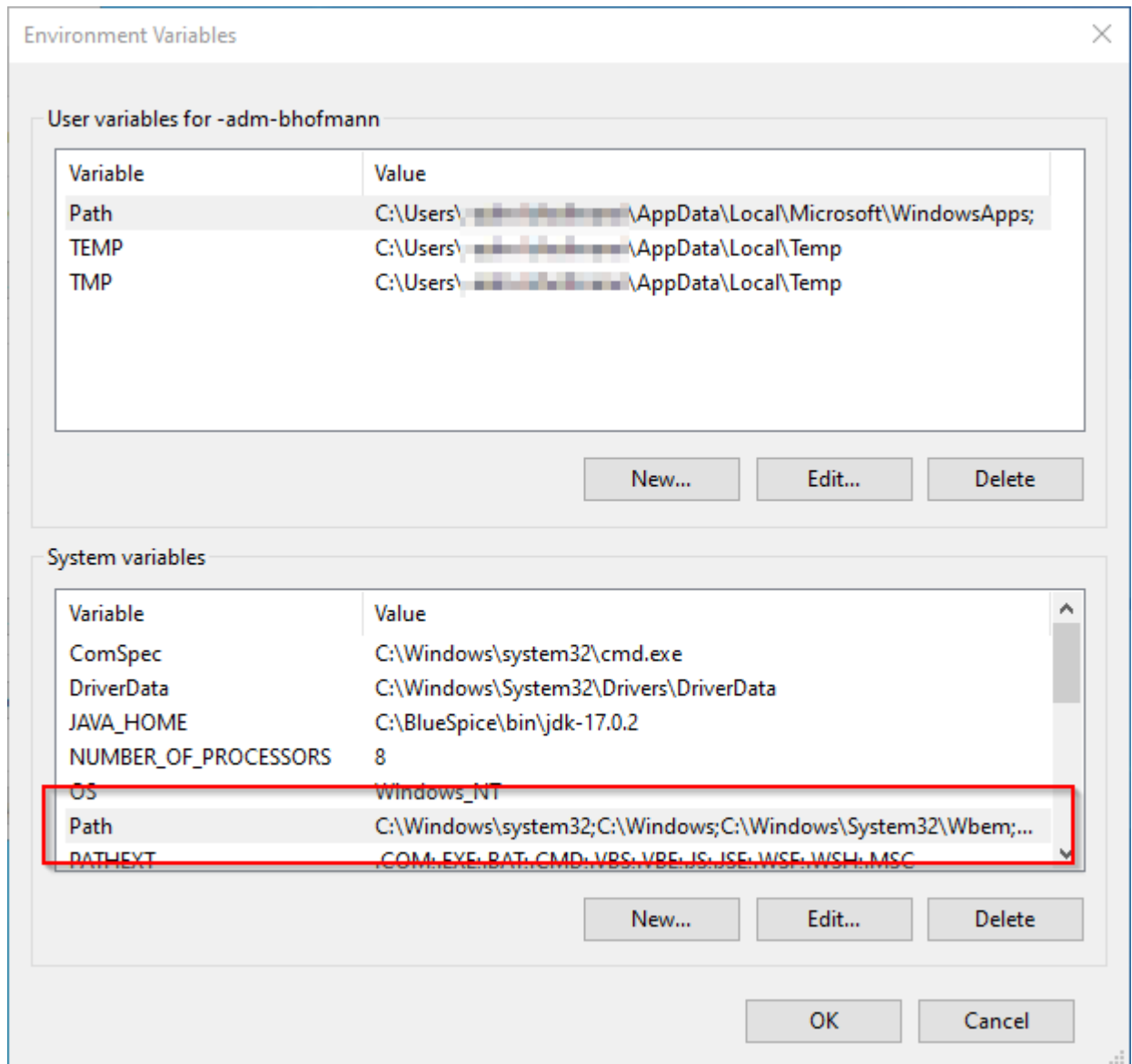
Enter "SystemPropertiesAdvanced.exe" (1) in the dialog window and **click** "OK" (2):



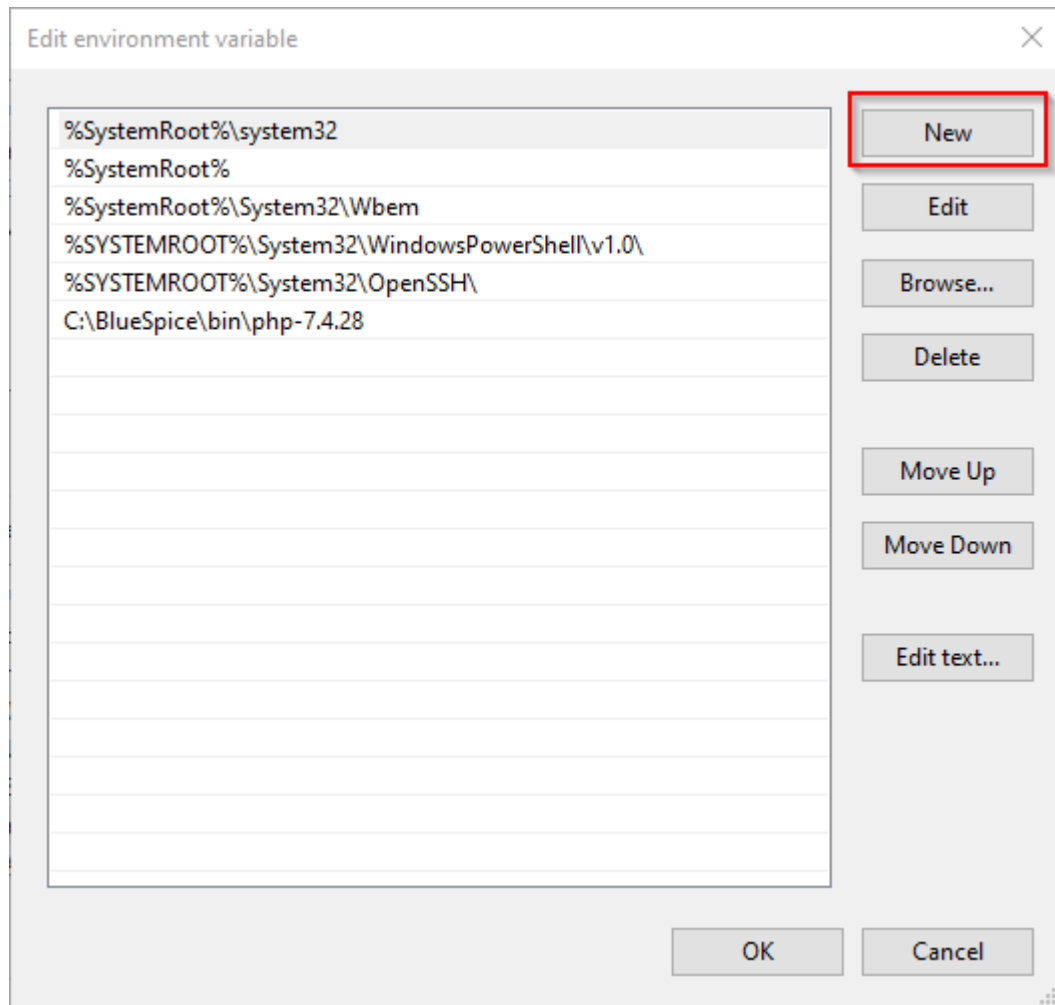
Click "Environment Variables...":



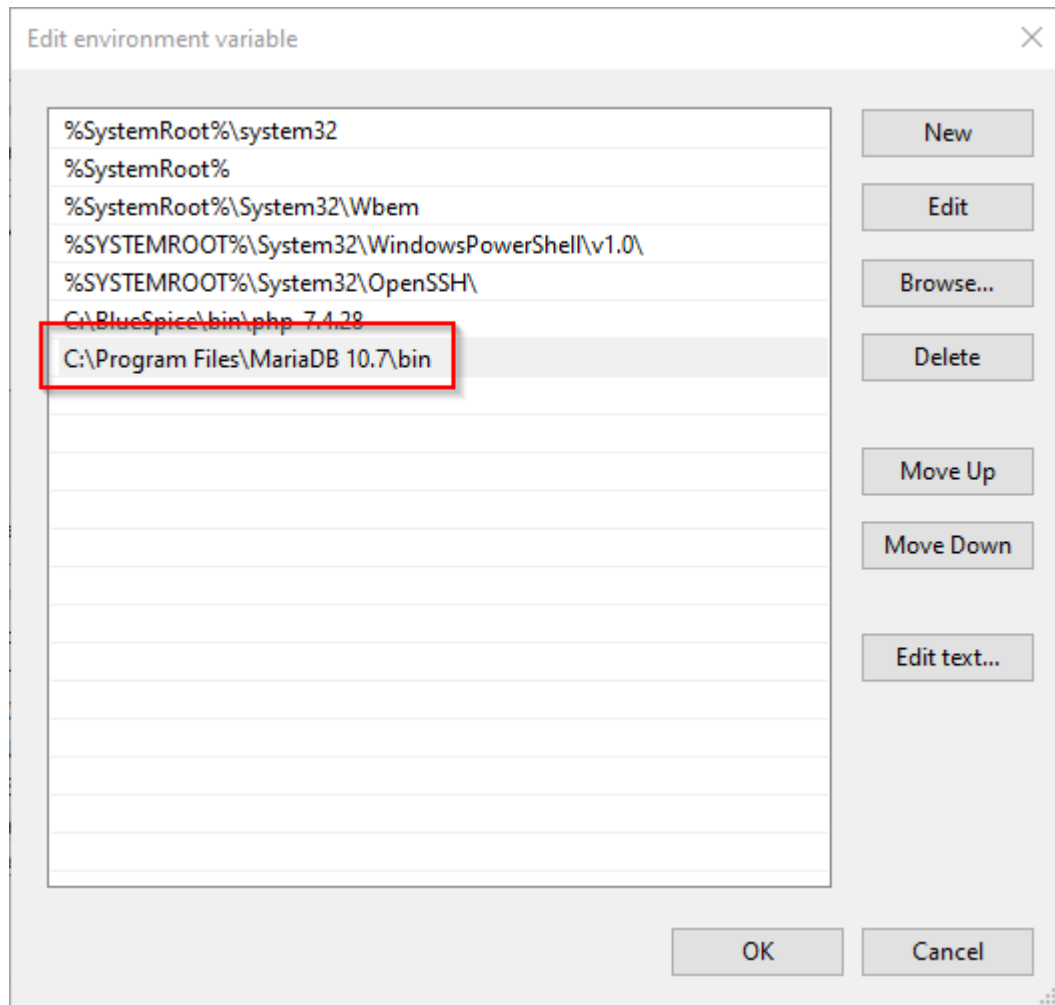
Double-click the entry "Path" in the section "System variables":



Click "New":



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



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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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

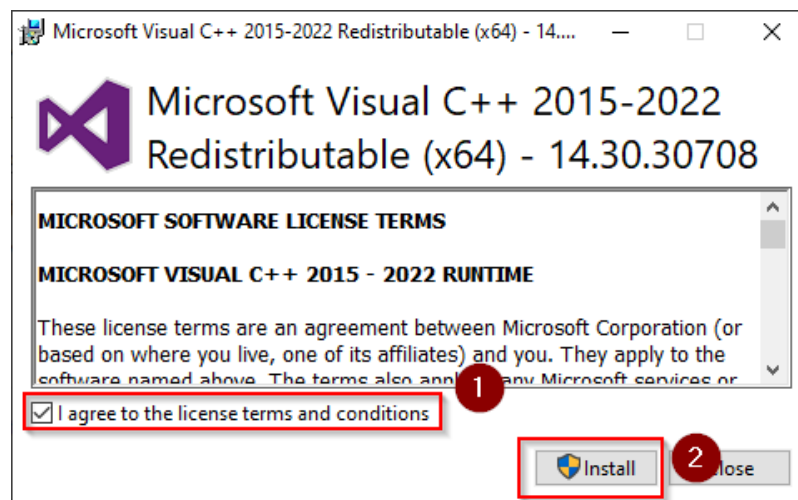


The content of this section refers to external sources and is current at the time of writing this documentation. We cannot guarantee how long these sources will remain unchanged. Please let us know if you notice any discrepancies to the information provided here.

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

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3	Setting the environment variable	54
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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.



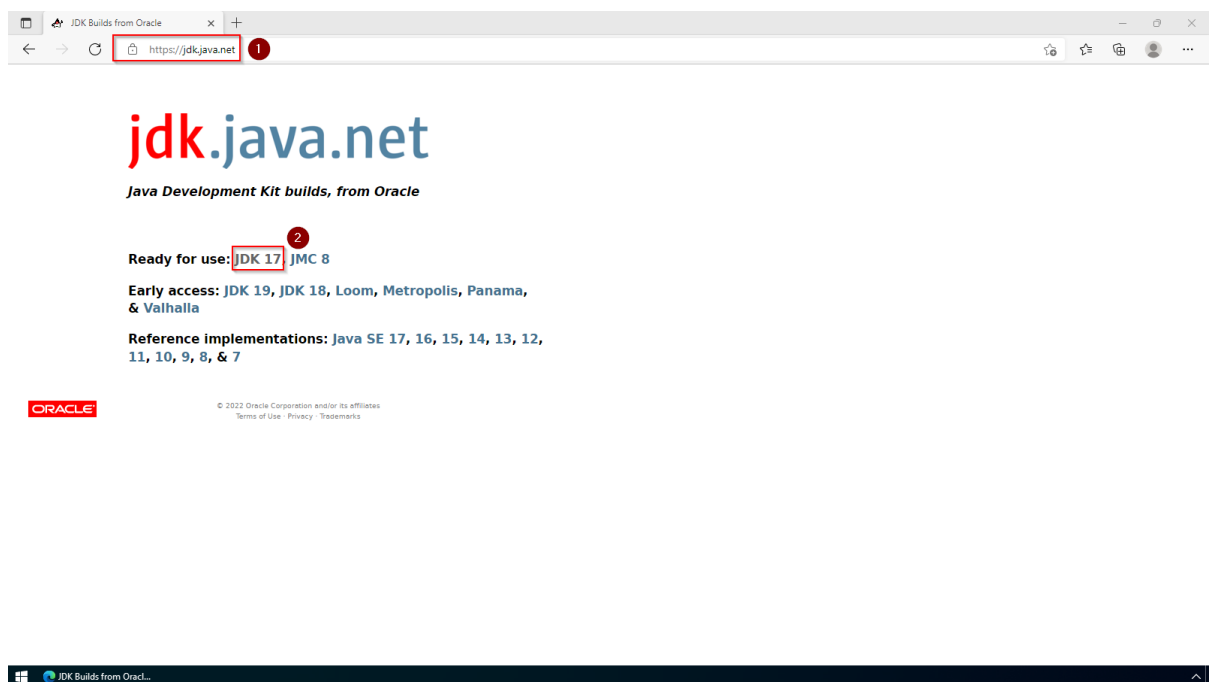
In the following documentation, we work with OpenJDK in version 17.0.2, the current version at the time of writing. You can also use other versions as long as they meet the system requirements we have published. Please note that you then have to adjust the information in this documentation accordingly.

Download

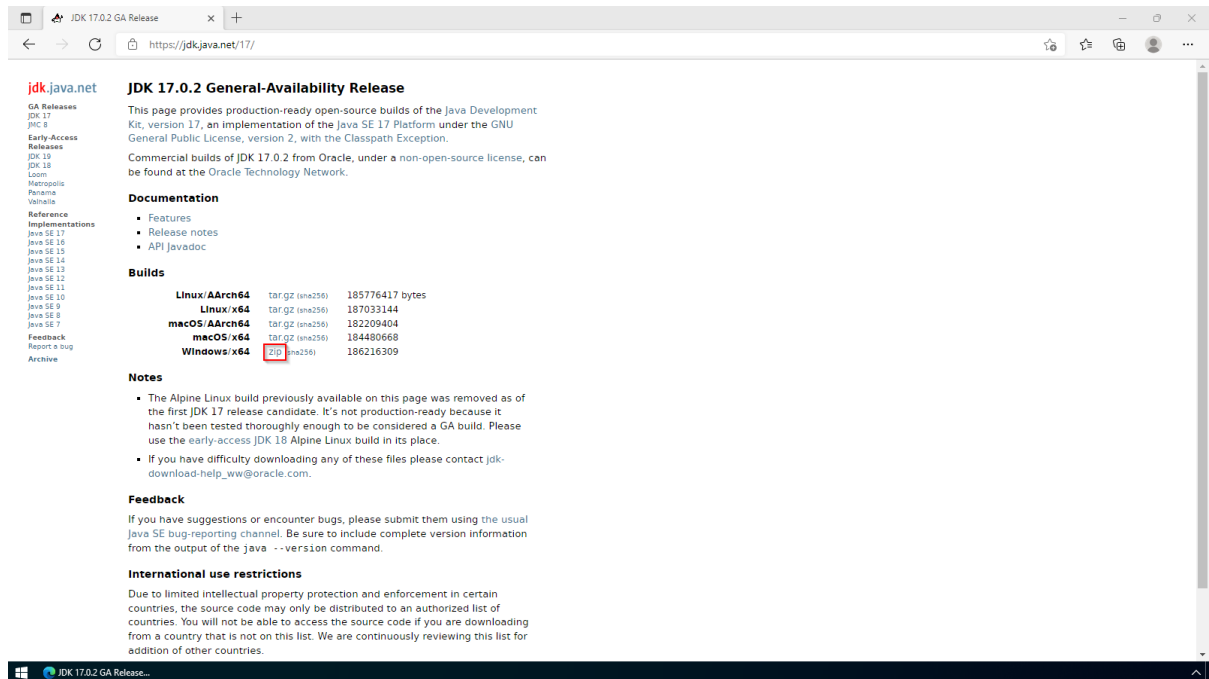


The content of this section refers to external sources and is current at the time of writing this documentation. We cannot guarantee how long these sources will remain unchanged. Please let us know if you notice any discrepancies to the information provided here.

Open the [official website at java.net](https://jdk.java.net) (1) and **click** "JDK 17" (2):



Download the ZIP archive for Windows:



Unpacking the ZIP archive



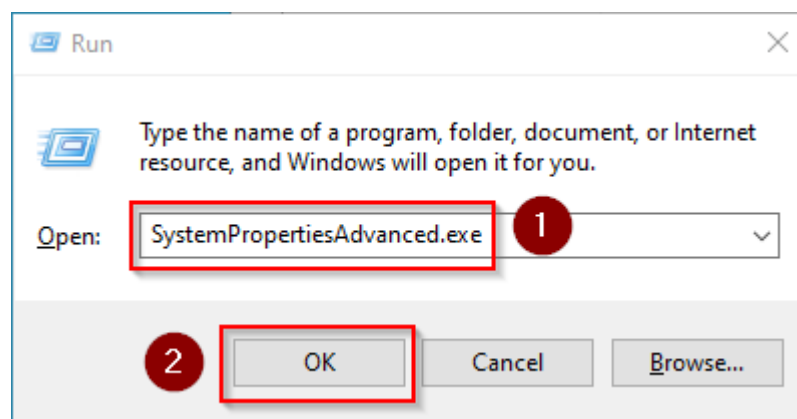
This documentation is based on the [folder structure recommended by us](#). If you want to adjust this individually, you have to adjust the paths yourself according to your own level of knowledge.

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

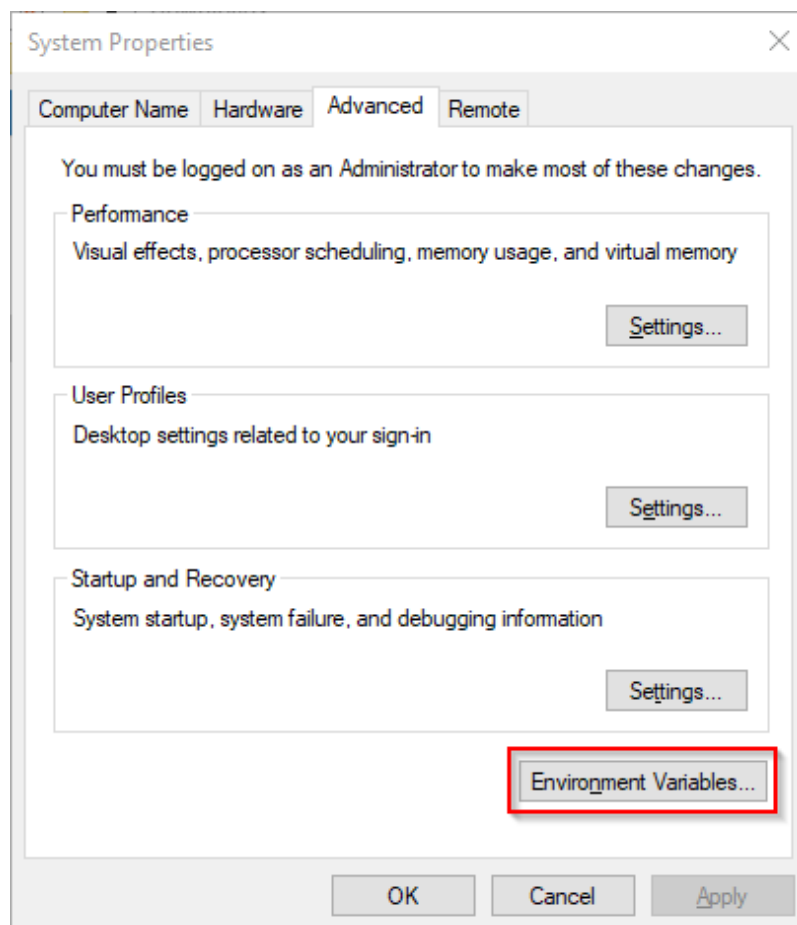
Setting the environment variable

Enter the key combination Windows+R.

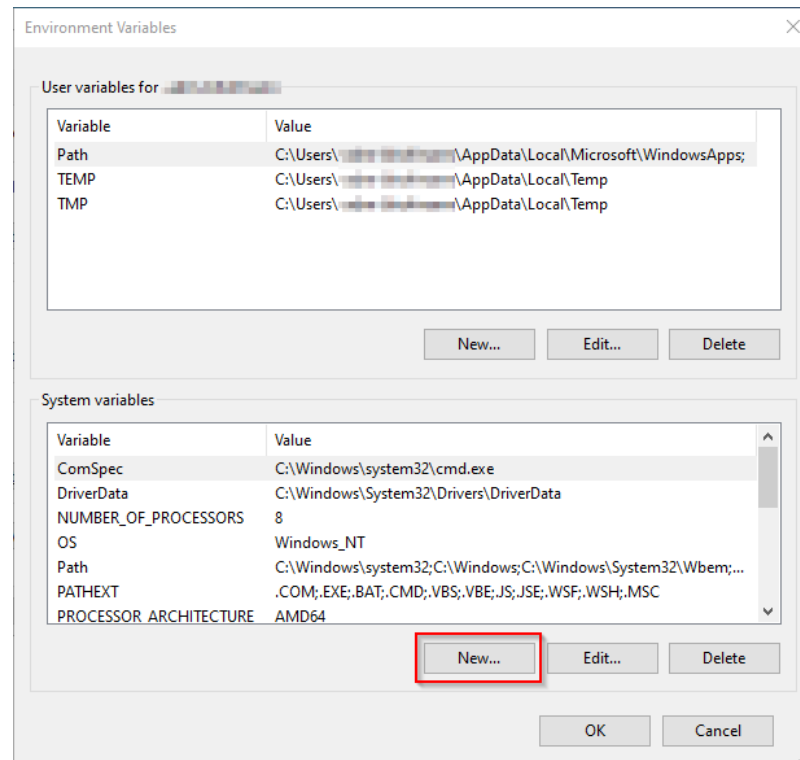
Enter "SystemPropertiesAdvanced.exe" (1) in the dialog window and **click** "OK" (2):



Click "Environment Variables...":



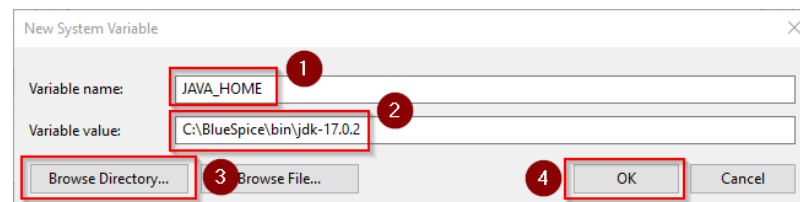
Click "New...":



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):




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

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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.

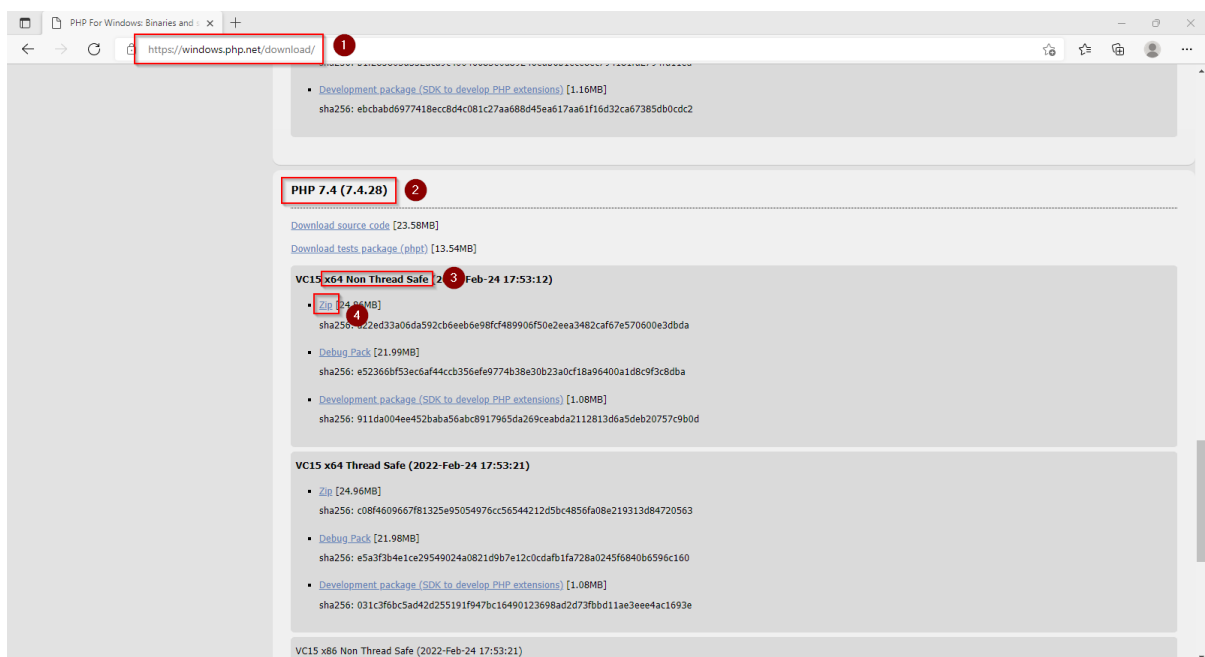
Download



The content of this section refers to external sources 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 for Windows](https://windows.php.net/download/) auf [php.net](https://windows.php.net/) (1).

Find the currently most recent version 7.4.x (2) 64-bit Non Thread Safe (3) and **download** it (4):



Follow the download instructions.



Please note that BlueSpice is not compatible with PHP 8.x at this time.



In the following steps, we use PHP-Version 7.4.28 which only serves as an example for the latest version 7.4.x that is available at the time of your download.

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](#).

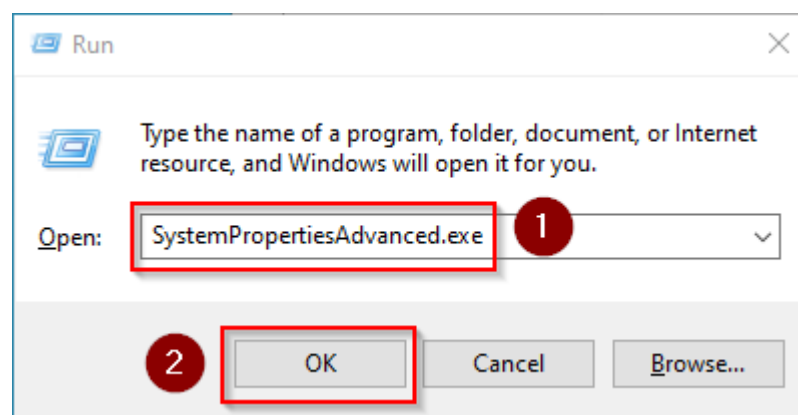
For this reason PHP will be unpacked into the folder C:\bluespice\bin\php-7.4.28. If you have a different folder structure, you must adapt these paths accordingly.

Setting the environment variable

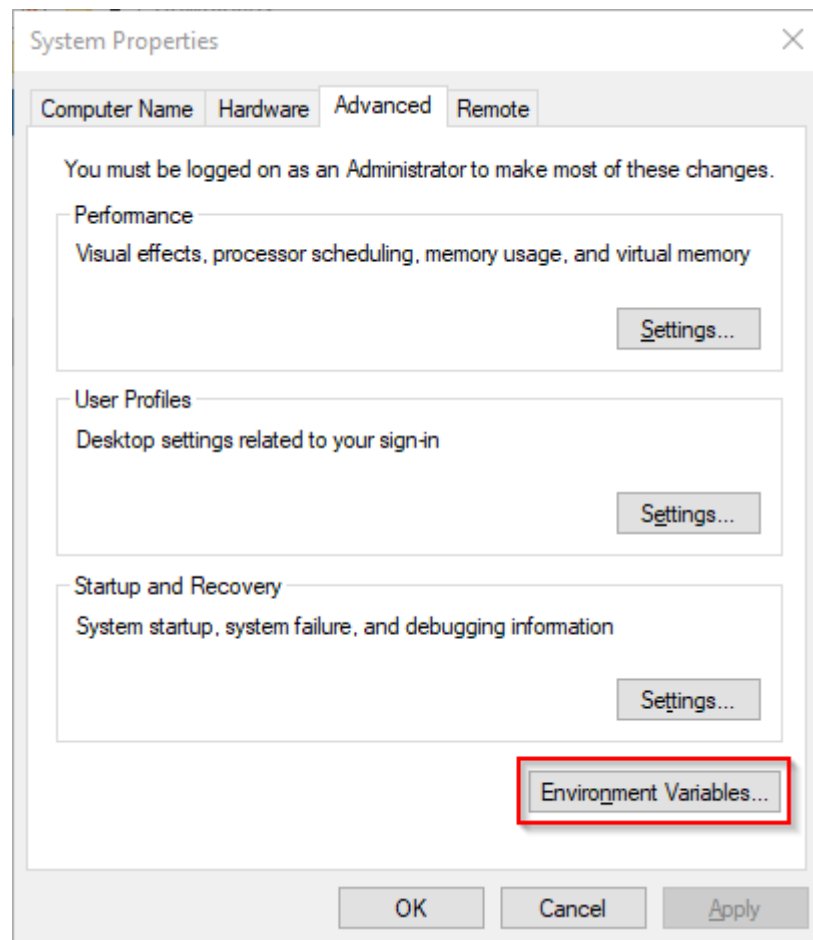
To use PHP easily on the command line of Windows, it is necessary to configure an environment variable in Windows. Perform the following steps:

Enter the key combination Windows+R.

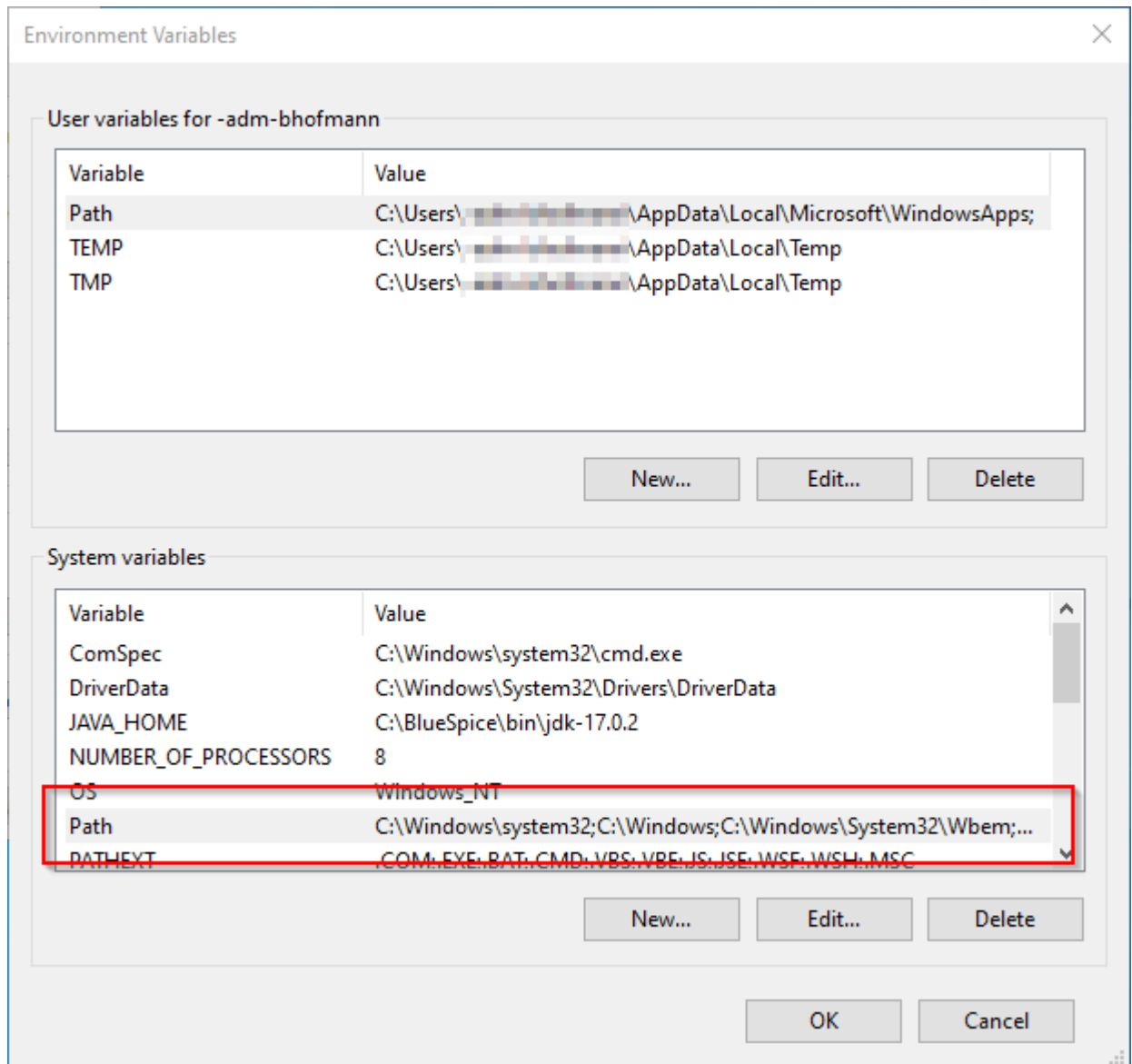
Enter "SystemPropertiesAdvanced.exe" (1) in the dialog window and **click** "OK" (2):



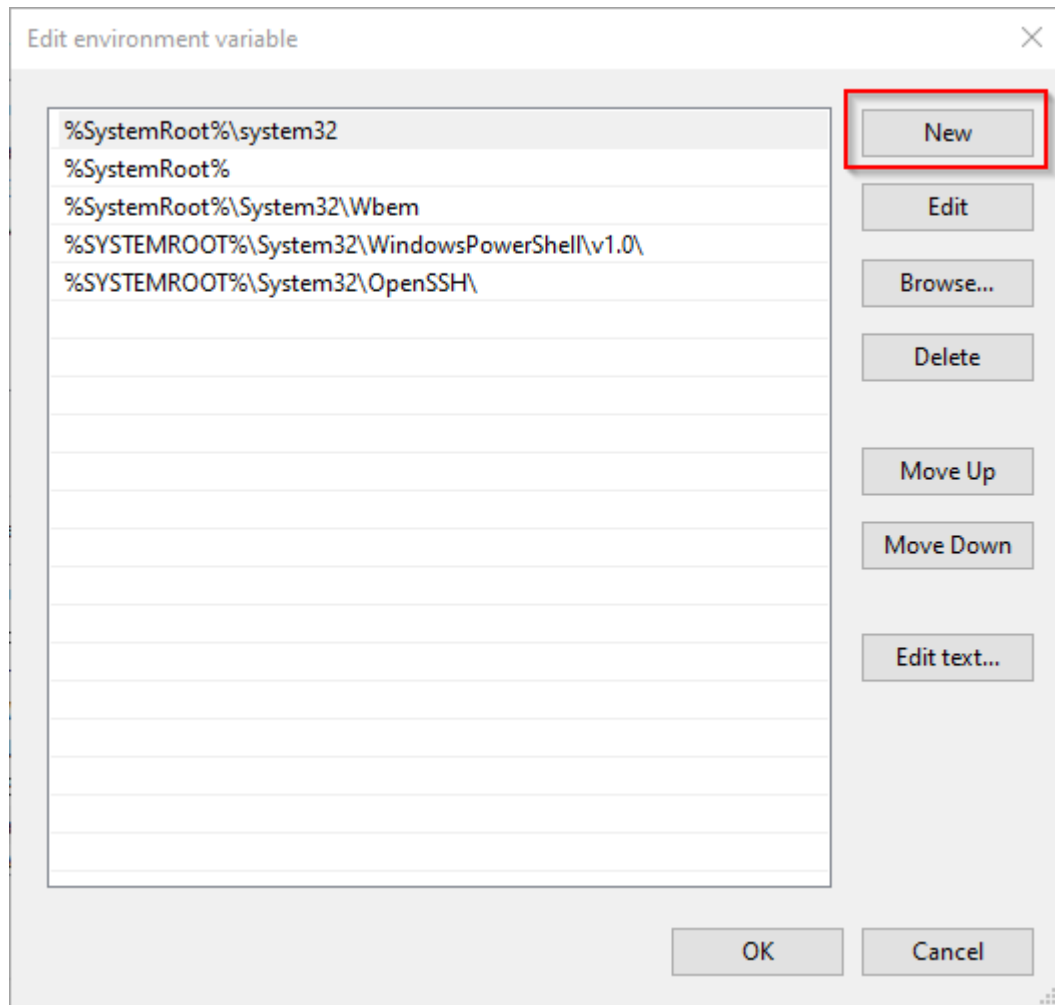
Click "Environment Variables...":



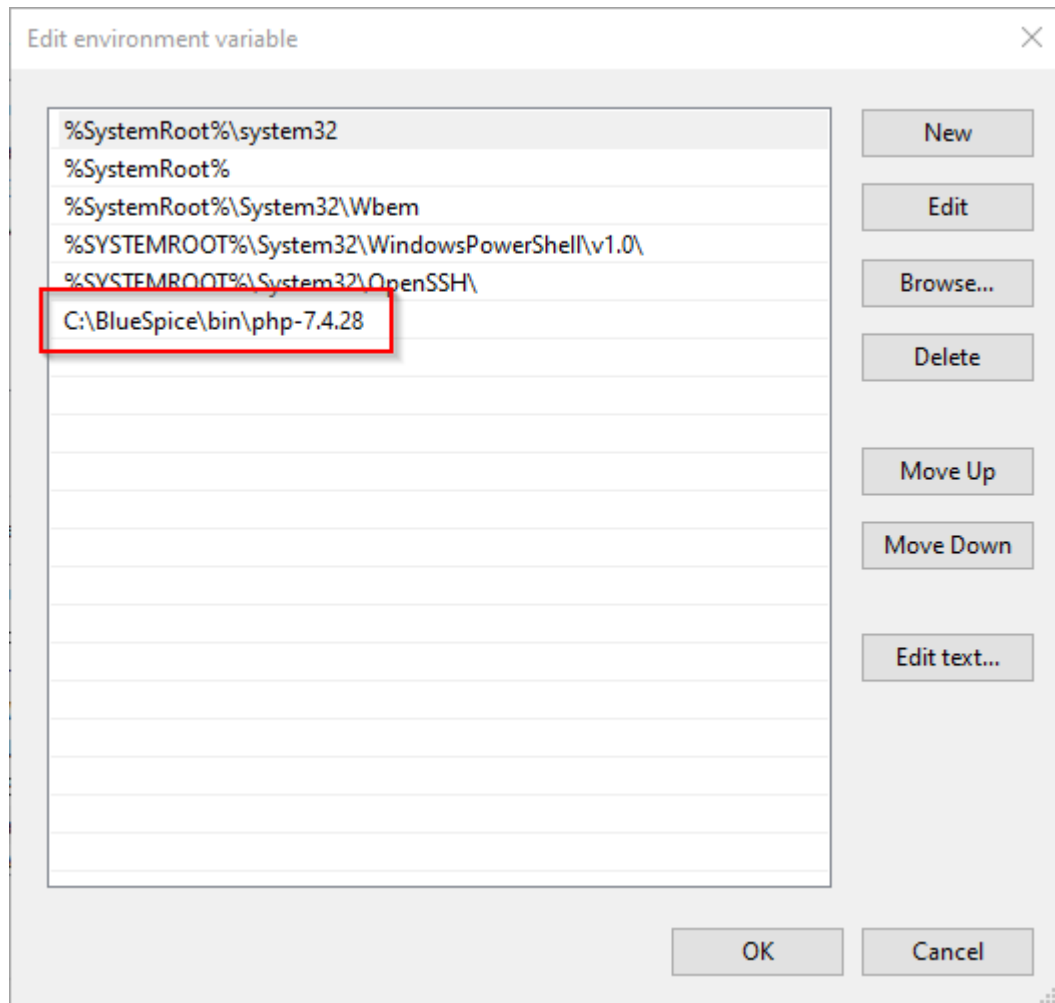
Double-click the entry "Path" in the section "System variables":



Click "New":



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



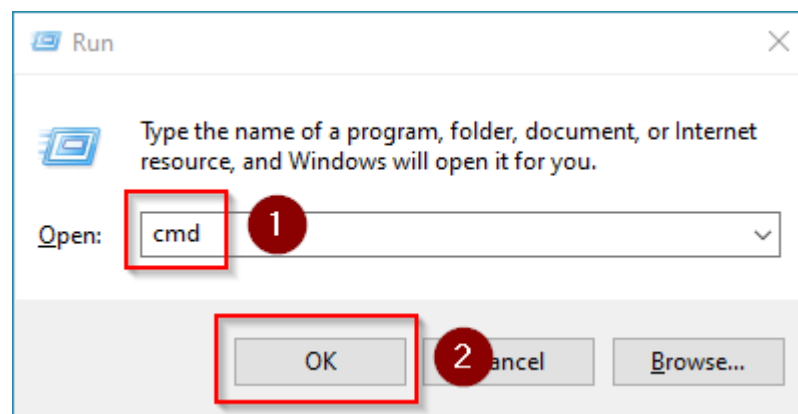
Close all newly opened windows one after the other by clicking "OK".

Checking the environment variable

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

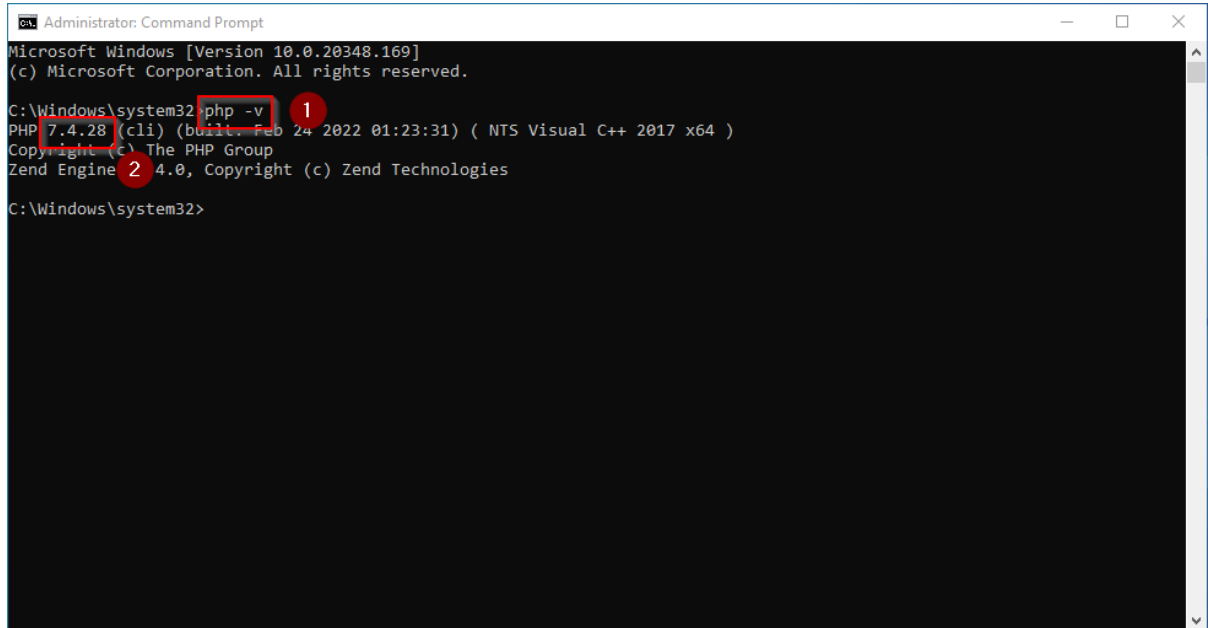
Enter the key combination Windows+R.

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



The command prompt opens.

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



```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.20348.169]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32 php -v 1
PHP 7.4.28 (cli) (built: Feb 24 2022 01:23:31) ( NTS Visual C++ 2017 x64 )
Copyright (c) The PHP Group
Zend Engine 2 4.0, Copyright (c) Zend Technologies

C:\Windows\system32>
```

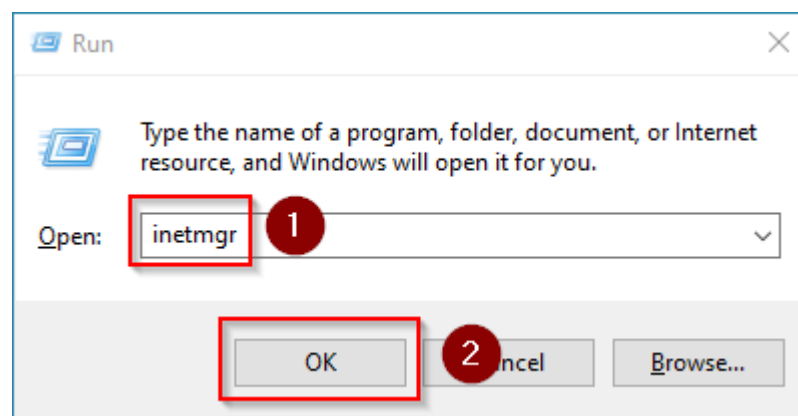
If this is not the case, then the path to the php.exe file in the environment variables was specified incorrectly.

Configuring IIS for PHP

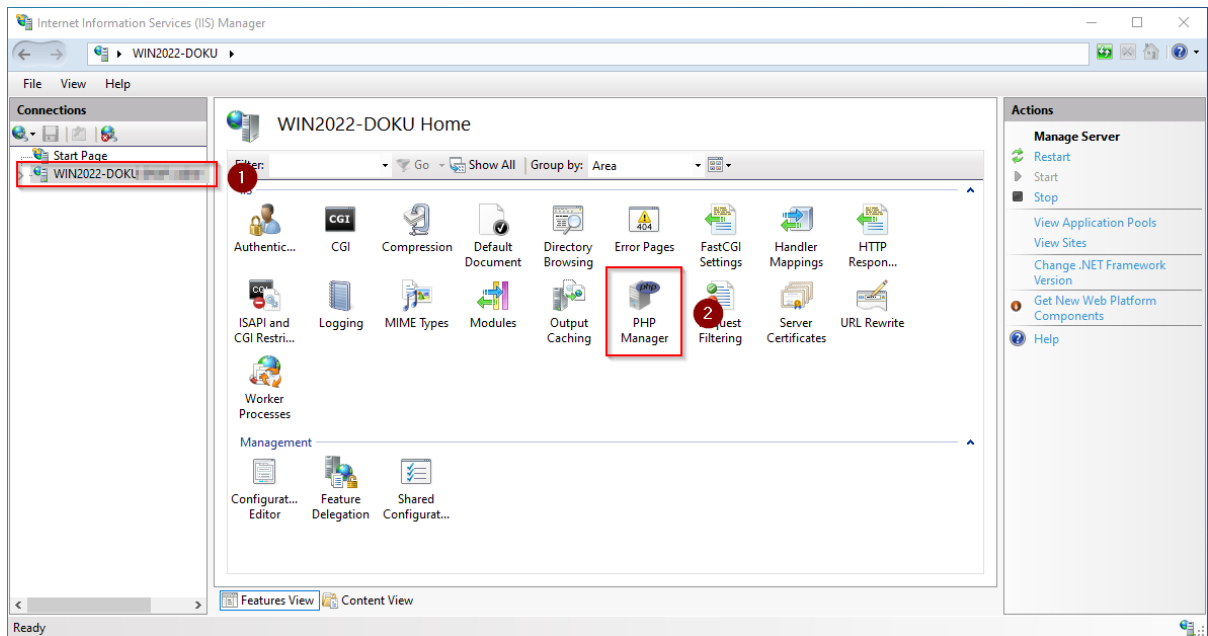
In the following steps, PHP will be included in IIS and IIS will be configured to provide a working basic setup:

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

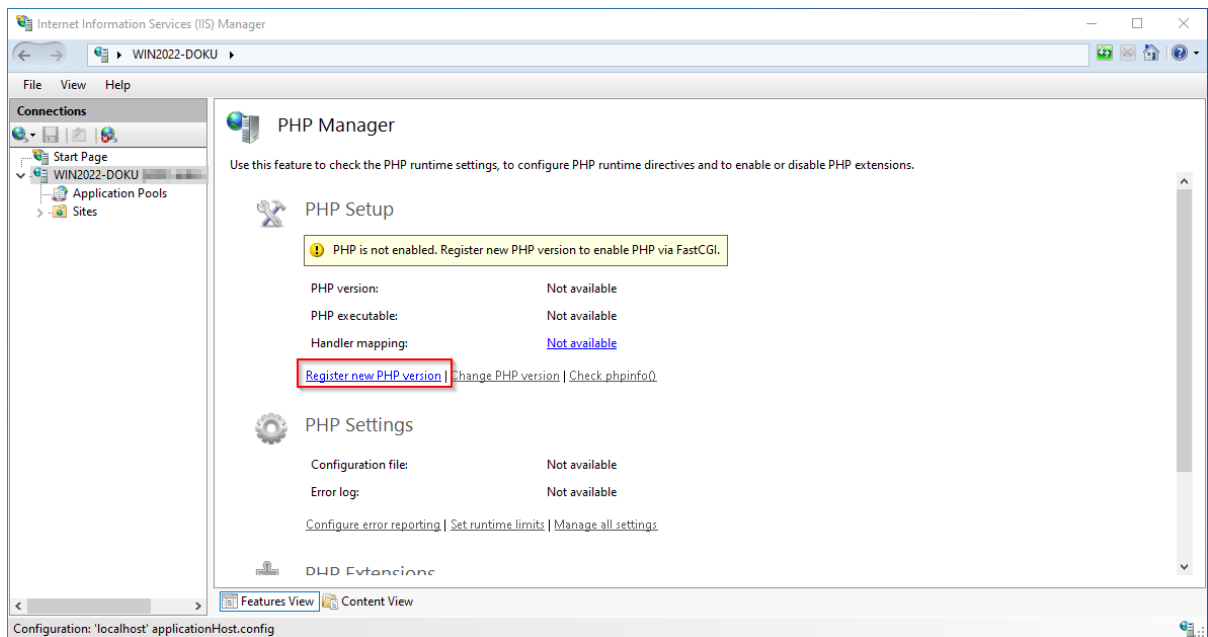
Enter "inetmgr" (1) in the dialog window and **click** "OK" (2):



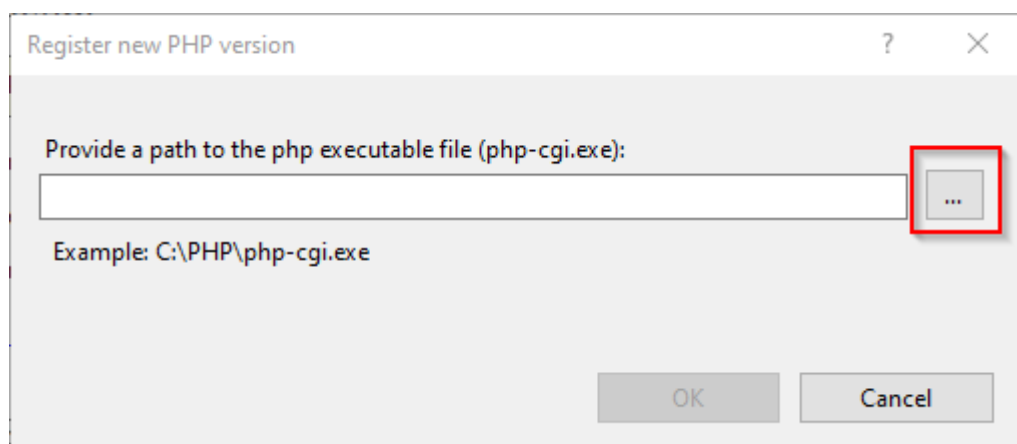
Select your server name (1) in the left pane and then **double-click** "PHP Manager" (2):



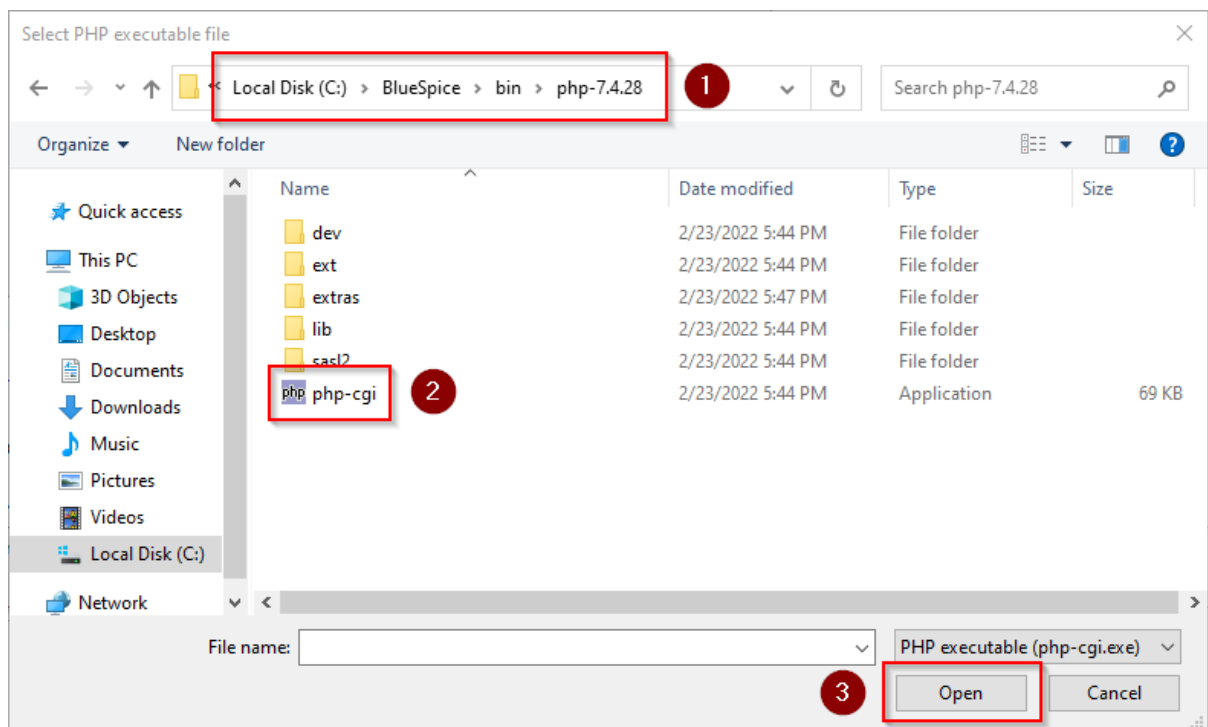
Click "Register new PHP version":



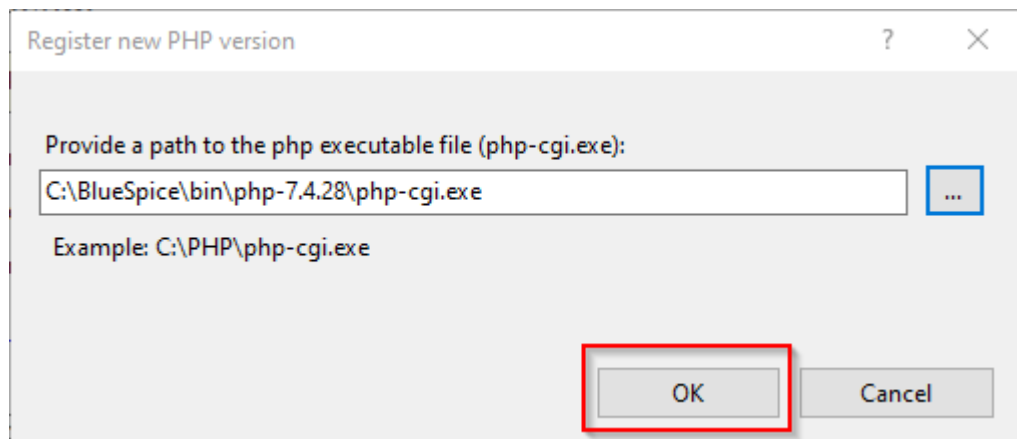
Select the browse "(...)" button in the next window:



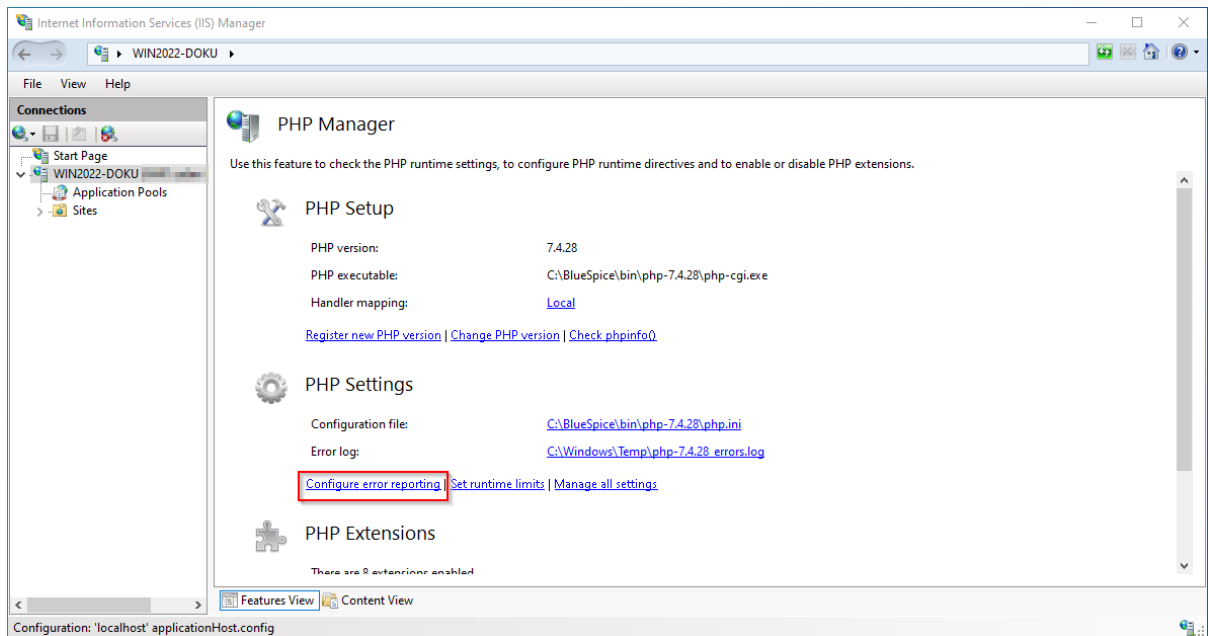
Change to the path to which you previously unzipped PHP (1), **mark** the "php-cgi.exe" (2) and **click** "Open" (3):



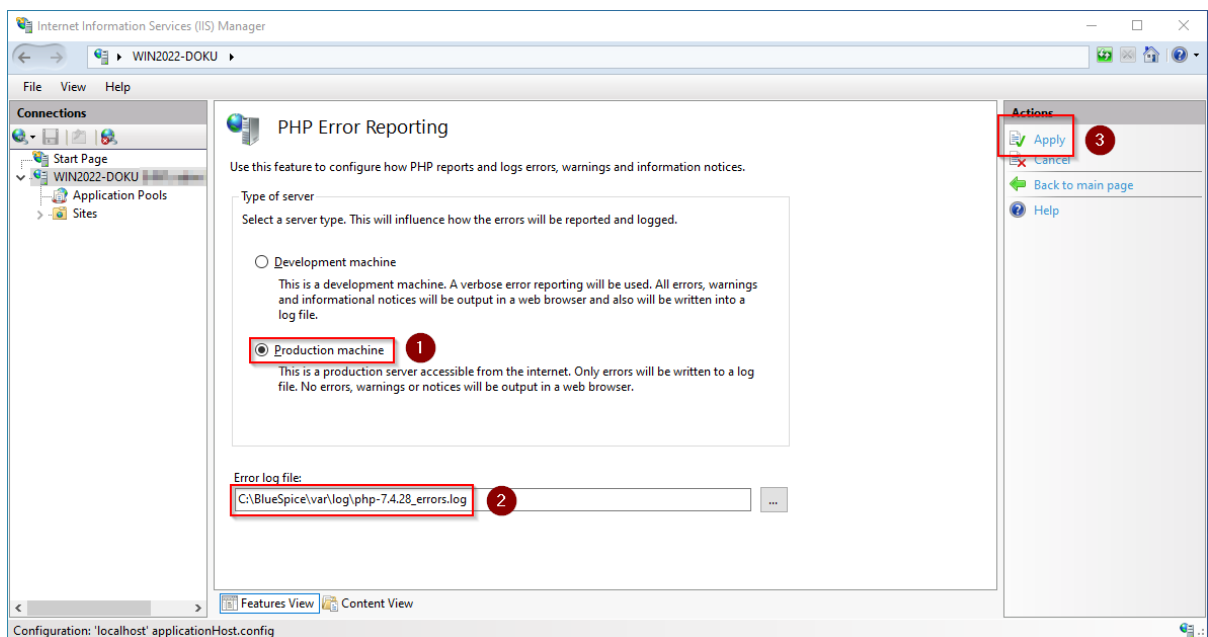
Click "OK":



Click "Configure error reporting":

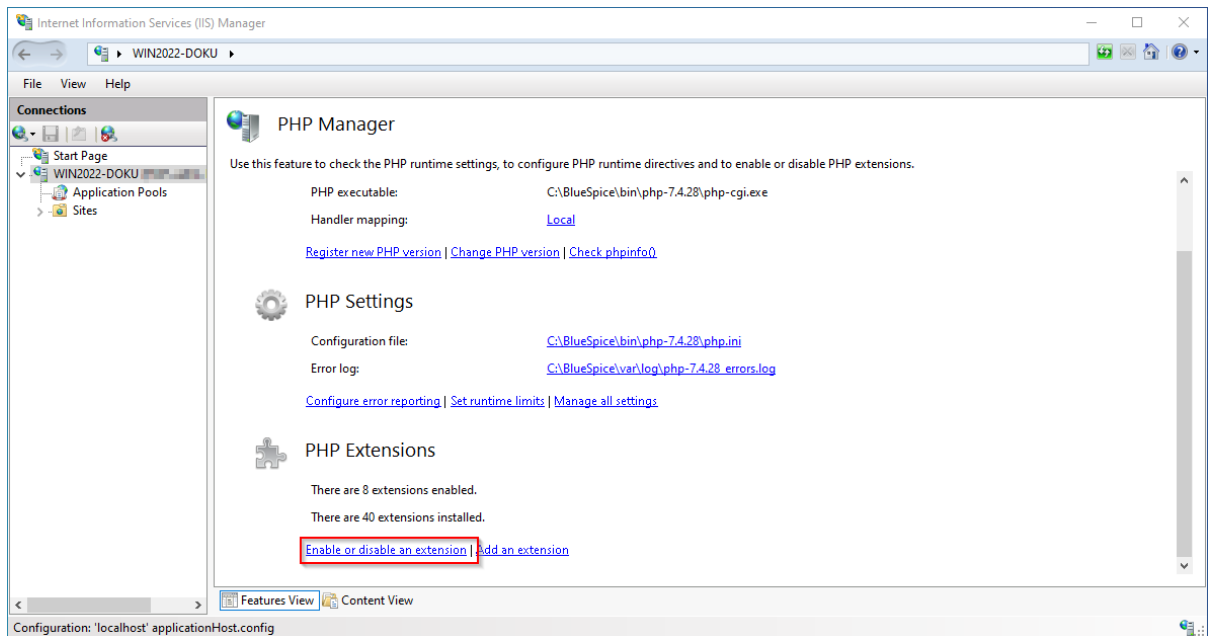


Select the item "Production machine" (1) and **enter** a path and a file of your choice where PHP should save its log (2). **Click** "Apply" (3):

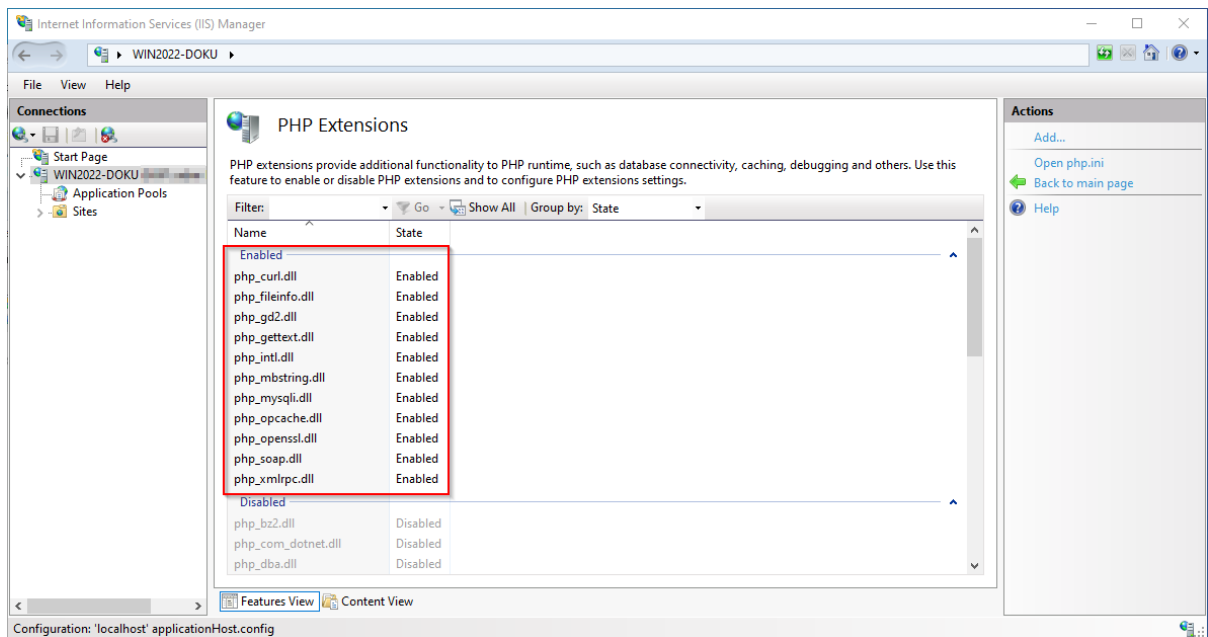


This documentation assumes the recommended folder structure. If the path you specify here does not yet exist, please create it before clicking "Apply".

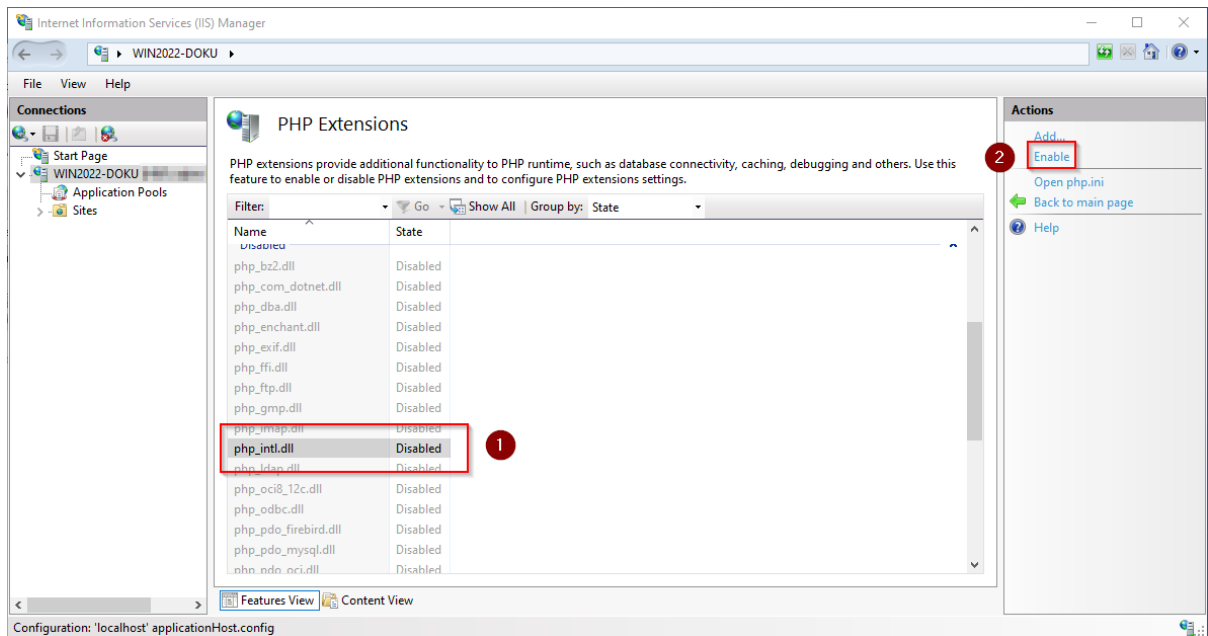
Click "Enable or disable an extension" in the main window:



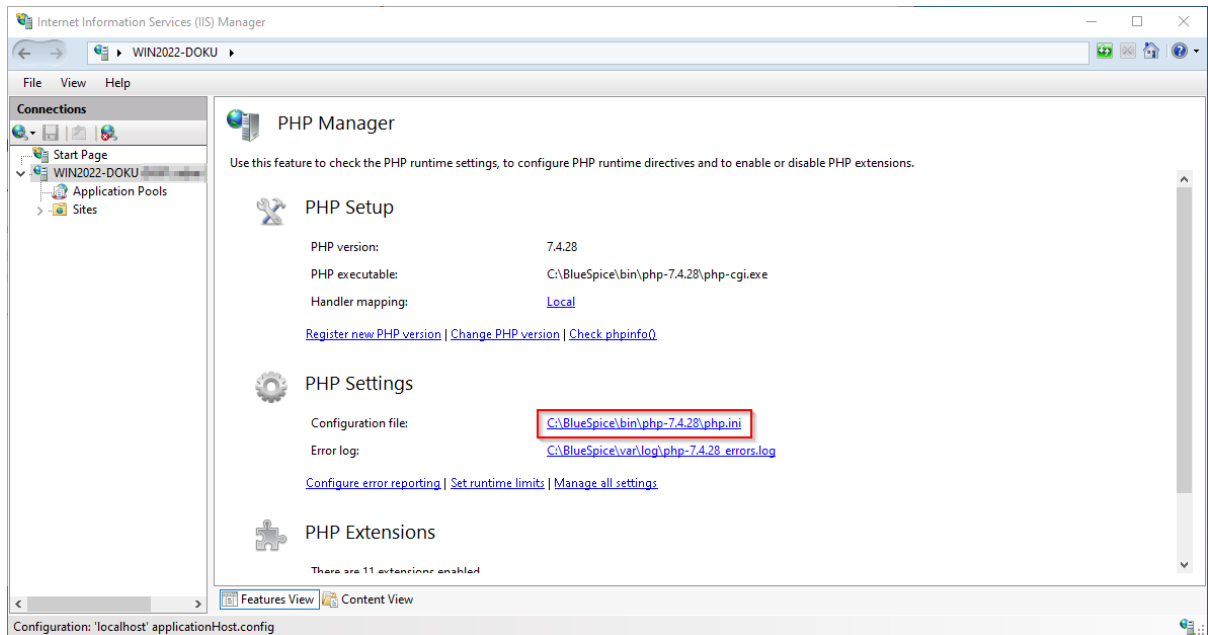
Make sure that the following extensions are activated:



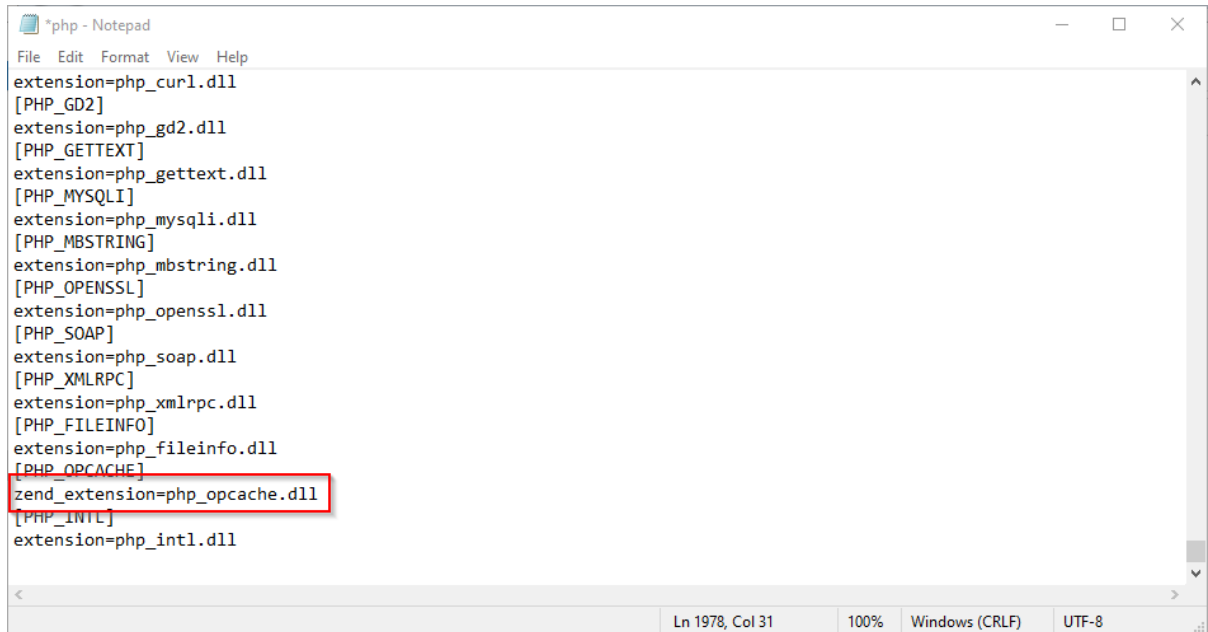
To activate an extension, find it in the "Disabled" extensions (1) and **click** "Enable" (2):



Open the configuration file *php.ini*:



Replace the line `extension=php_opcache.dll` with `zend_extension=php_opcache.dll`:



```
*php - Notepad
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
[PHP_INTL]
extension=php_intl.dll

Ln 1978, Col 31    100%    Windows (CRLF)    UTF-8
```

Change the following options to the values below:

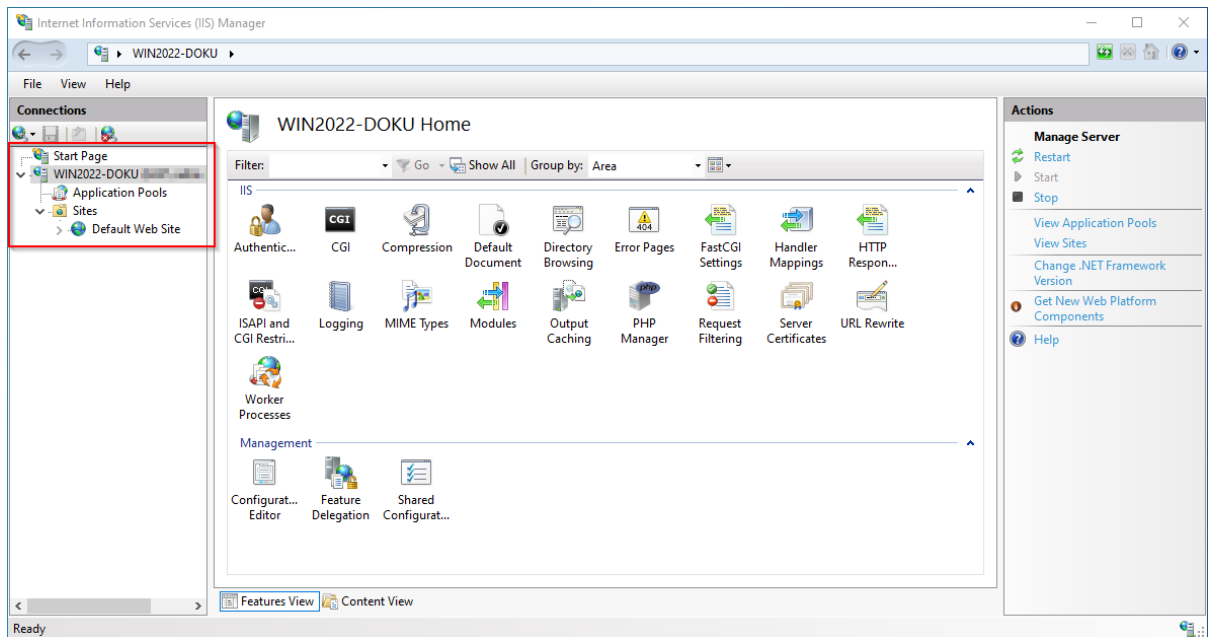
Name	Wert	Kommentar
date.timezone	"Europe/Berlin"	Select the appropriate time zone for you. Uncomment the entry
max_execution_time	600	
post_max_size	1024M	
upload_max_filesize	1024M	
opcache.enable	1	Uncomment the entry
opcache.enable_cli	0	Uncomment the entry
opcache.memory_consumption	512	Uncomment 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.

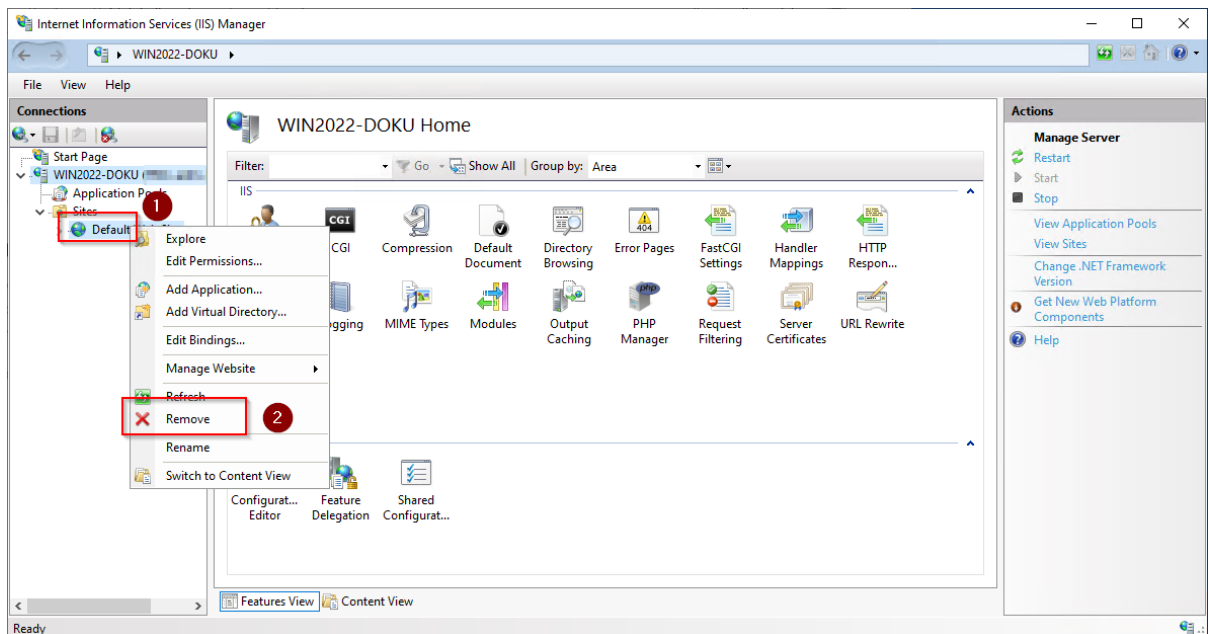
Create the folder `C:\bluespice\etc`.

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

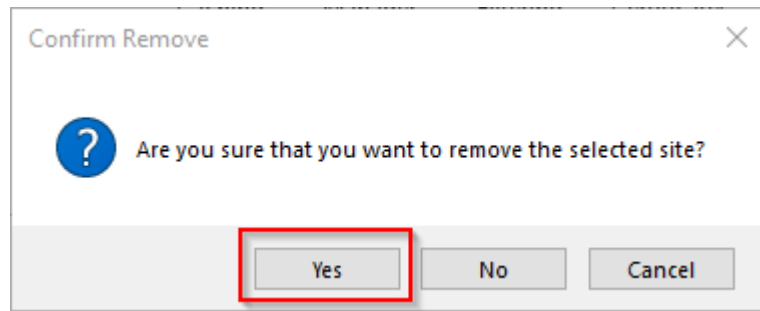
Expand the tree in the left pane of the IIS Manager until the "Default Web Site" becomes visible:



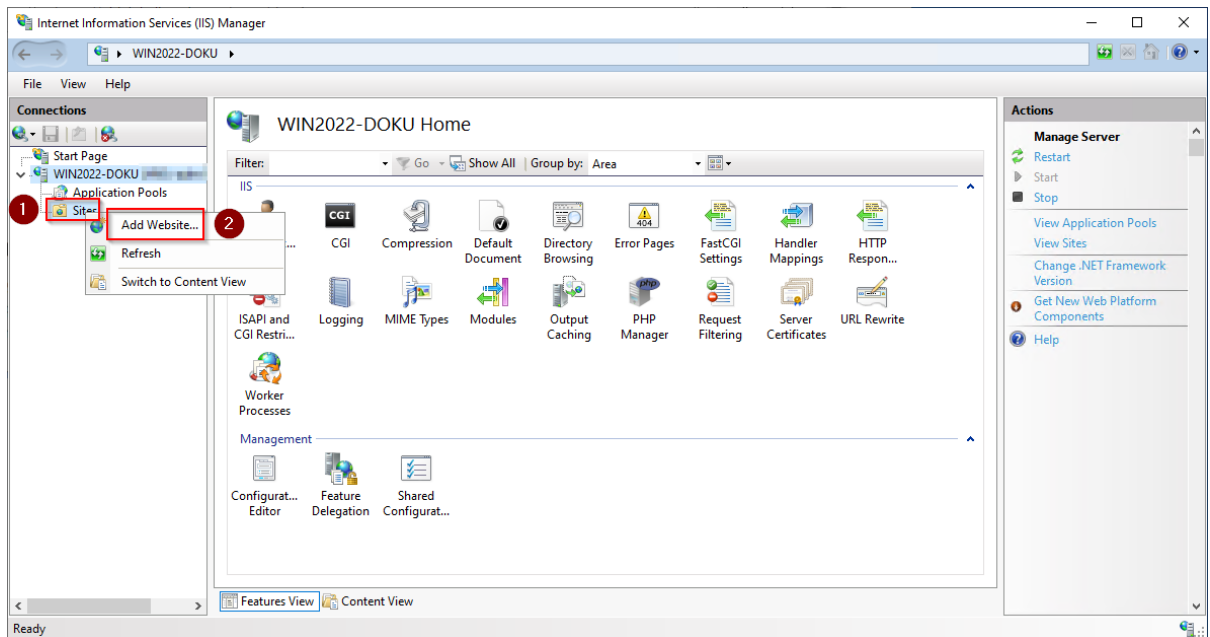
Right-click (1) and then **click** "Remove" (2):



Confirm the following dialog with "Yes":



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



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):

Add Website

Site name: Application pool:

Content Directory

Physical path:

Pass-through authentication

Binding

Type: IP address: Port:

Host name:

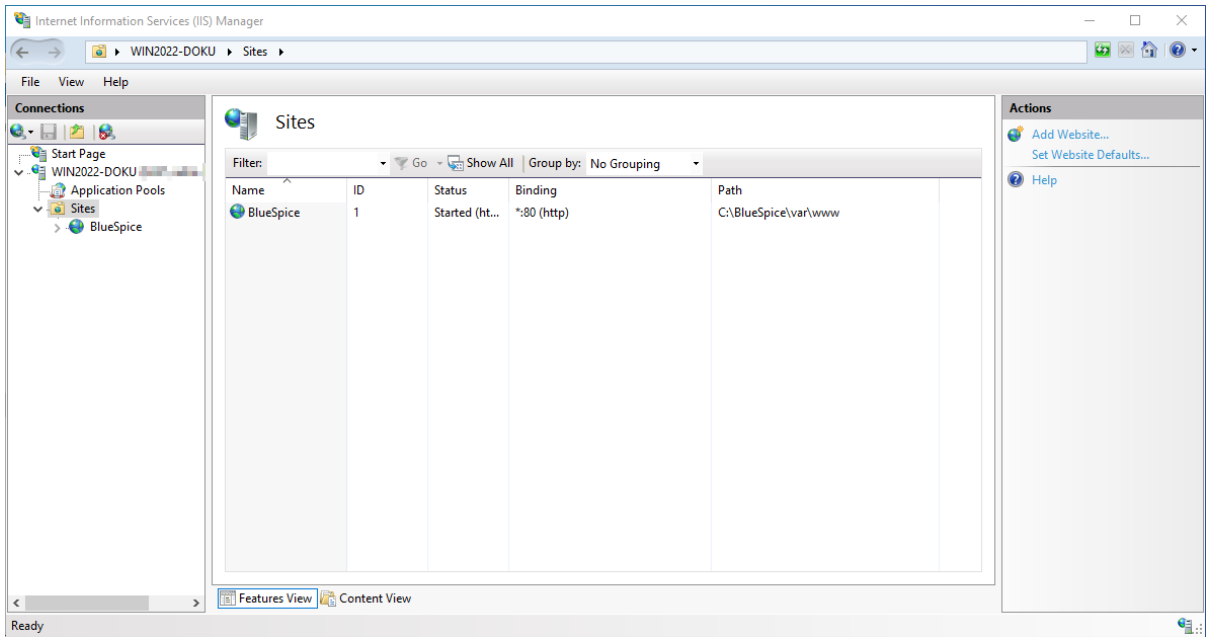
Example: www.contoso.com or marketing.contoso.com

☒ Start Website immediately



This documentation assumes the [recommended folder structure](#). If the path you specify here does not yet exist, please create it before clicking "OK".

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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3 [Next step](#) 77



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](https://www.iis.net) (1) and click "Download this extension" (2).

We are excited to announce that the IIS.NET Forums are moving to the new Microsoft Q&A experience. Learn more >

Microsoft

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All Downloads Community Contributed Downloads Microsoft Supported Downloads Free Web Platform Installer

Home > Downloads > Community Contributed Downloads > PHP Manager 1.5.0 for IIS 10

PHP Manager 1.5.0 for IIS 10

This is a Community Contributed Download

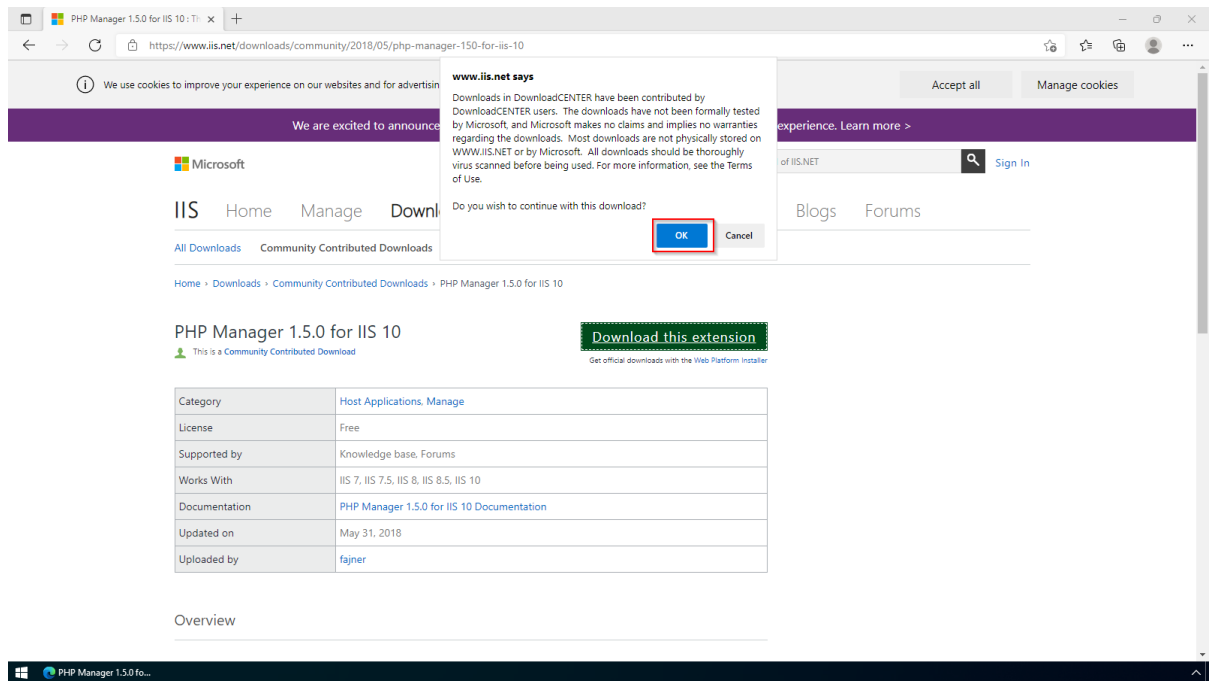
Download this extension

Get official downloads with the Web Platform Installer

Category	Host Applications, Manage
License	Free
Supported by	Knowledge base, Forums
Works With	IIS 7, IIS 7.5, IIS 8, IIS 8.5, IIS 10
Documentation	PHP Manager 1.5.0 for IIS 10 Documentation
Updated on	May 31, 2018
Uploaded by	fajner

Overview

Click "OK" after reading the disclaimer:

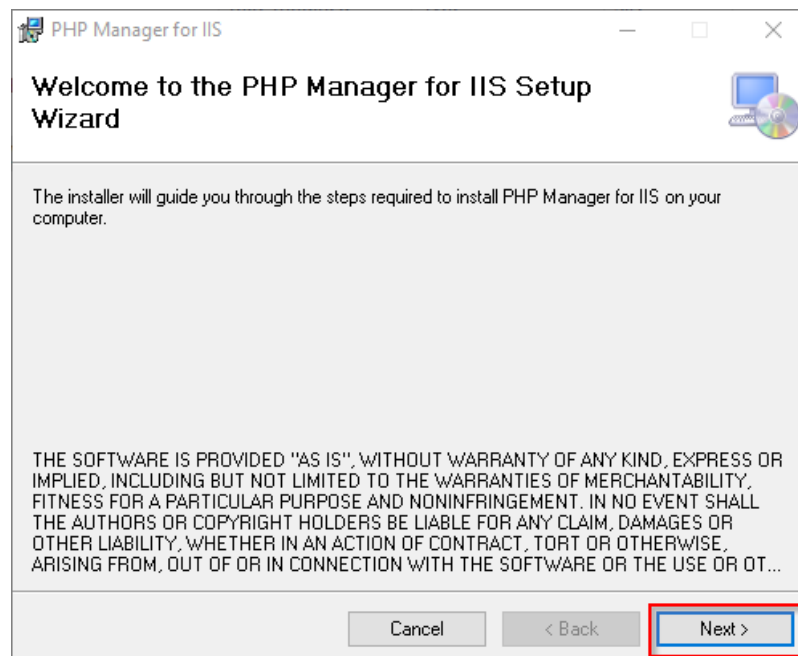


Follow the download instructions of your browser.

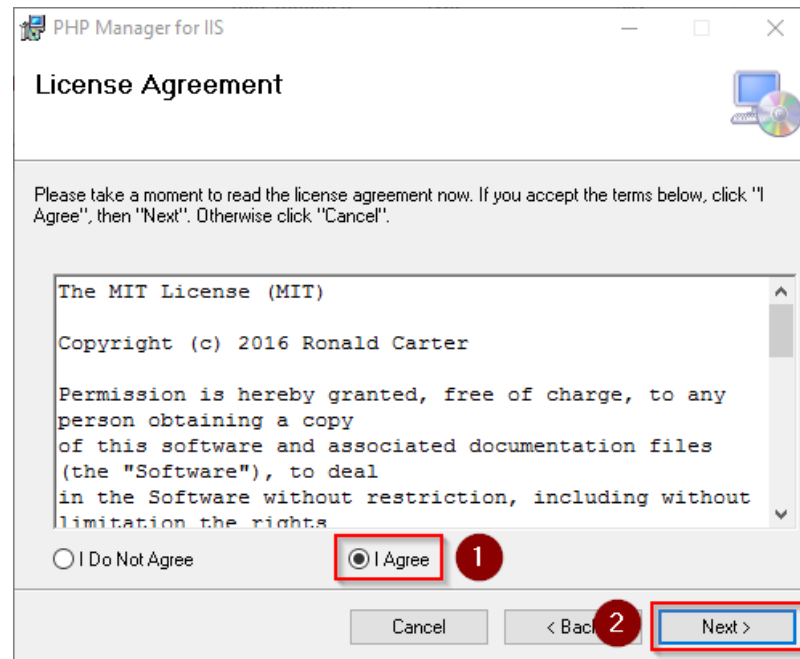
Installation

Open the installation file which you have just downloaded.

Click "Next >" to start the installation:

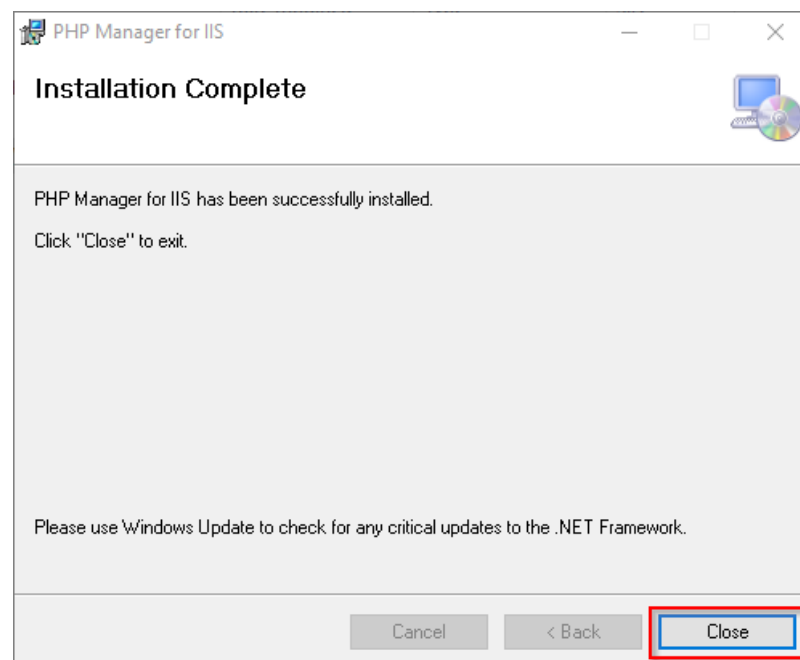


Select "I agree" (1) in the License Agreement and **click** "Next >" (2):



The installation is now executed and completed without further confirmation.

Close the setup program when finished:



Next step

If you have successfully completed all of the above steps, go to the next step: [PHP](#).

Setup:Installation Guide/System Preparation/Windows/Python

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3.1 Completion 84



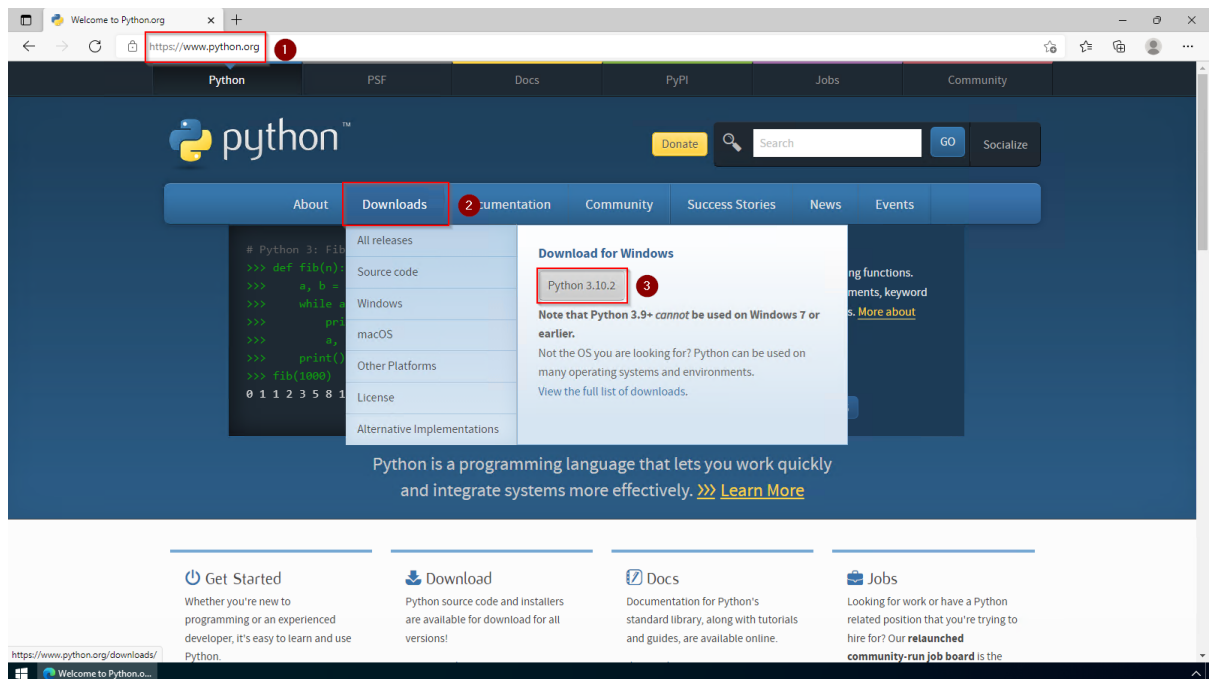
Python with the Pygmentize extension is required for rendering the MediaWiki extension **SyntaxHighlight**, which is part of BlueSpice. If you do not need the functionality, the installation of Python is not relevant for the installation and operation of BlueSpice.

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](https://www.python.org).



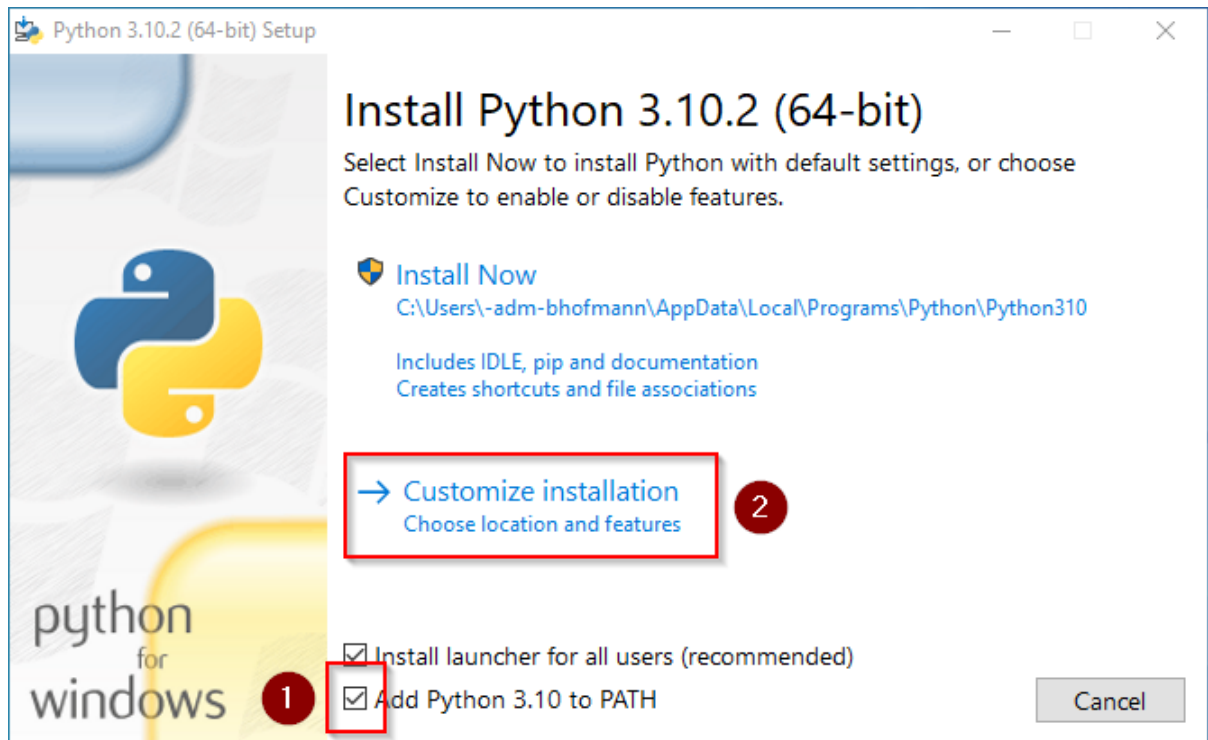
In the following, Python in version 3.10.2 is used and only serves as an example for the most current version that you can download at the time of your installation.

Installation

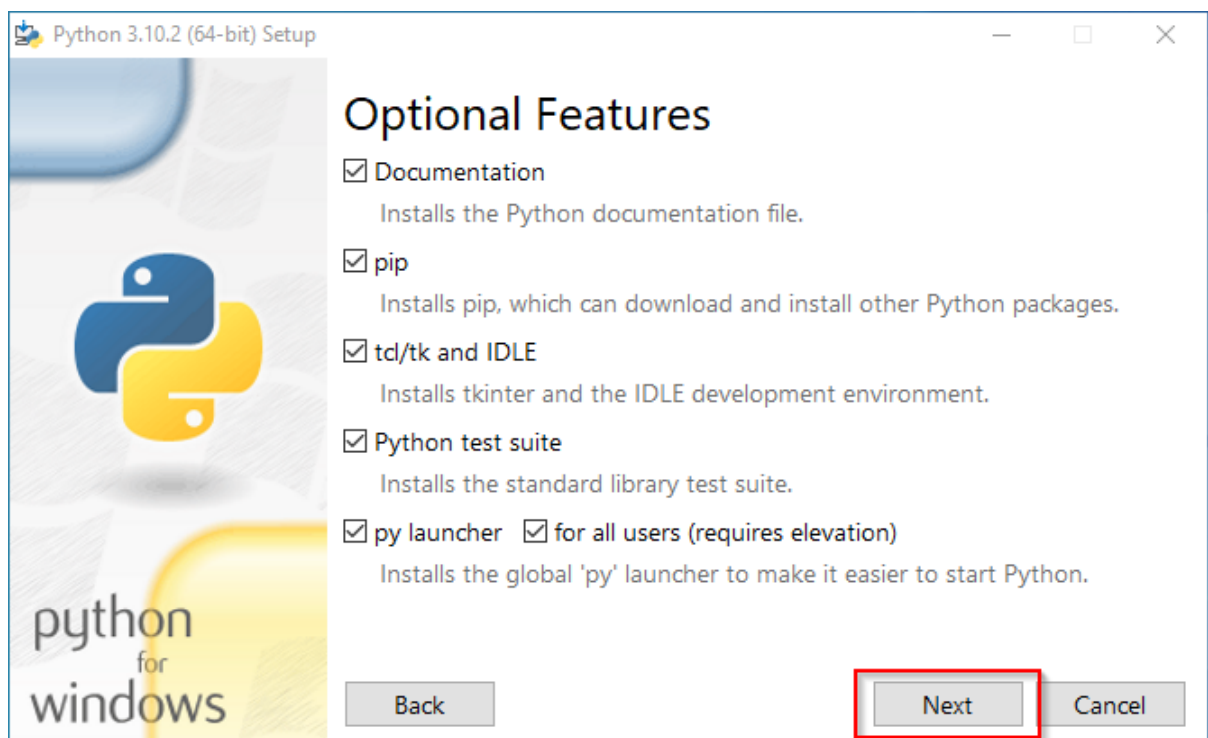
Open the file that you have just downloaded.

Select both checkboxes (1).

Click "Customize installation" (2):

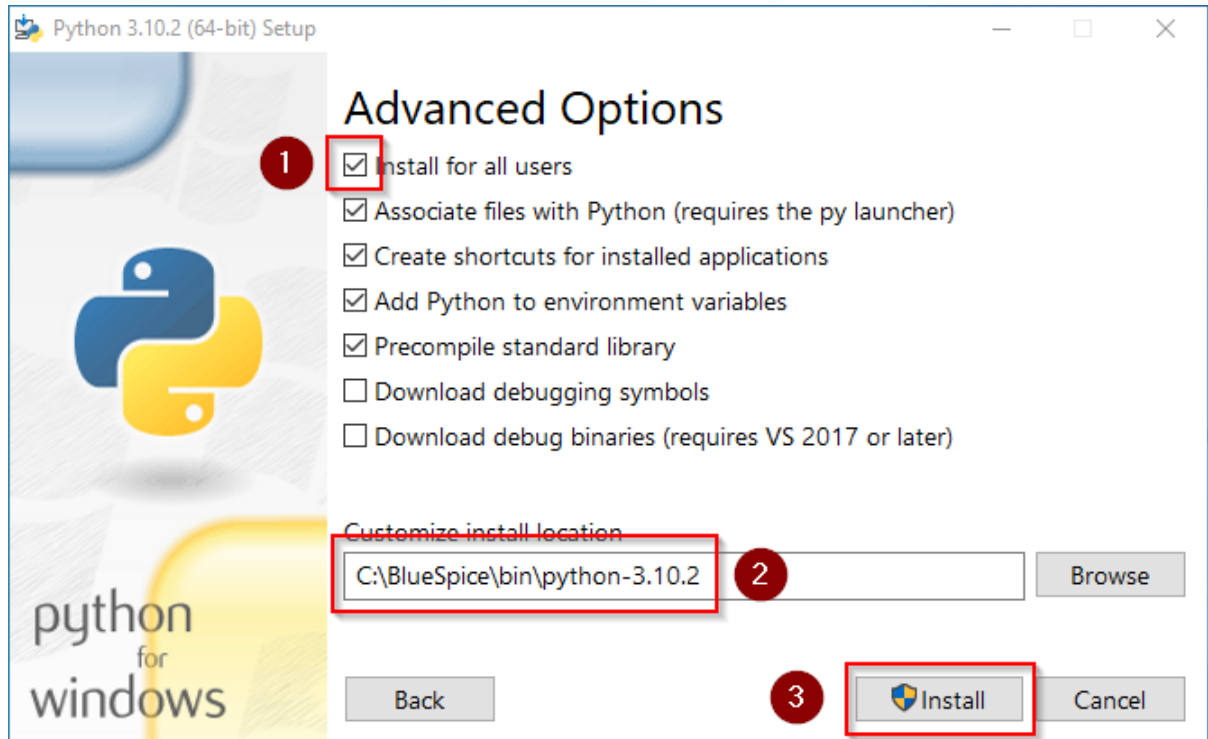


Click "Next" in the Optional Features window.



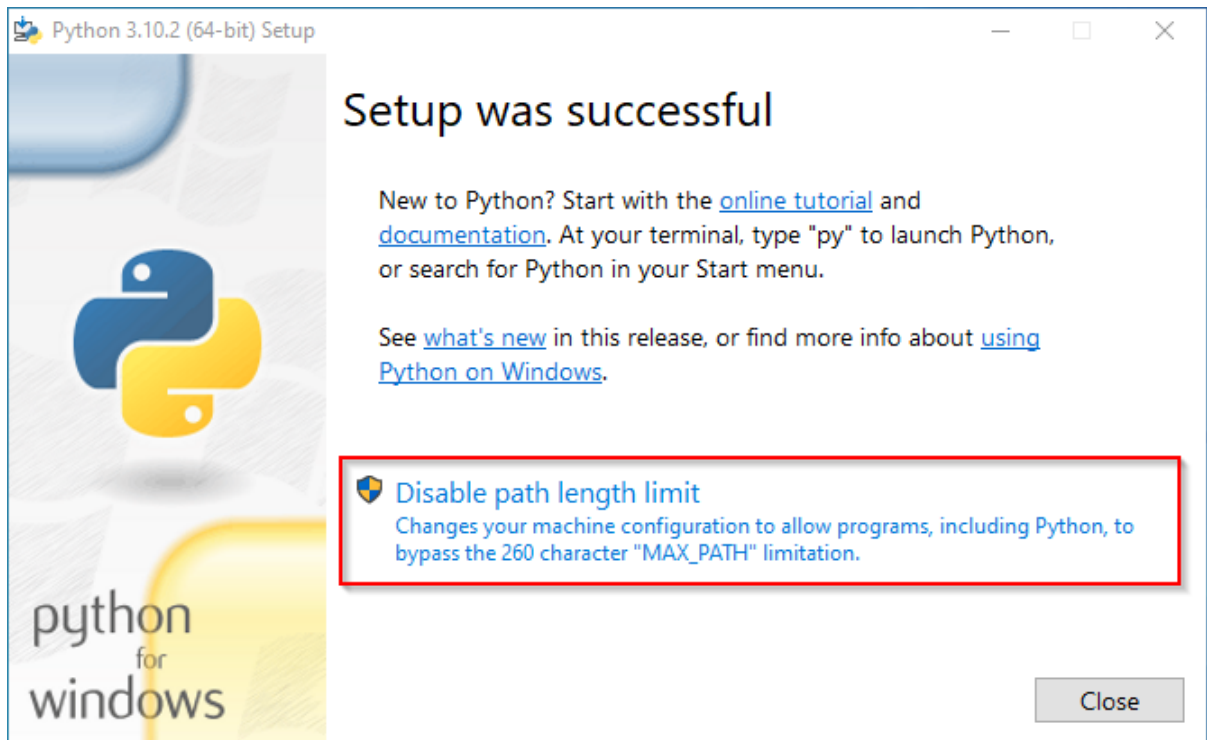
Make sure to install Python for all users (1) . Choose an appropriate path, if possible without spaces and special characters (2)

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

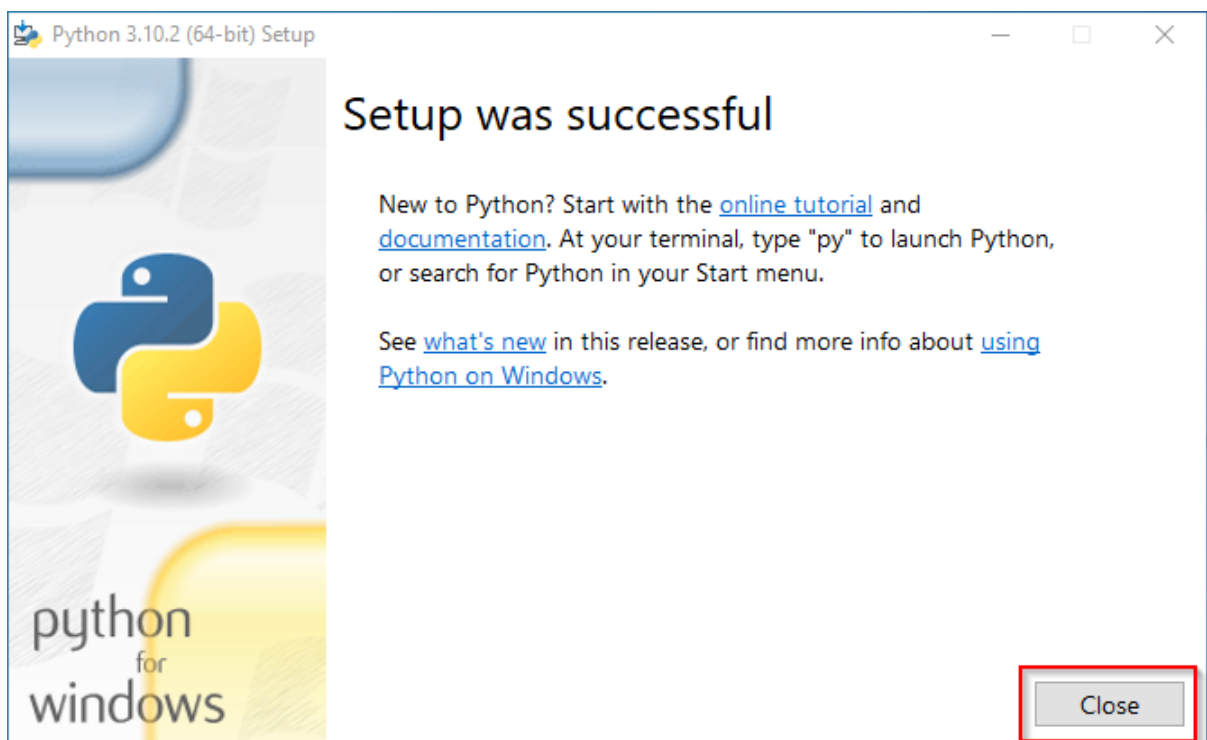


This documentation assumes the [folder structure recommended by us](#). For this reason, Python is unpacked at this point in the folder C:\bluespice\bin\python-3.10.2. If you have individual wishes, adjust these paths according to your own understanding.

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

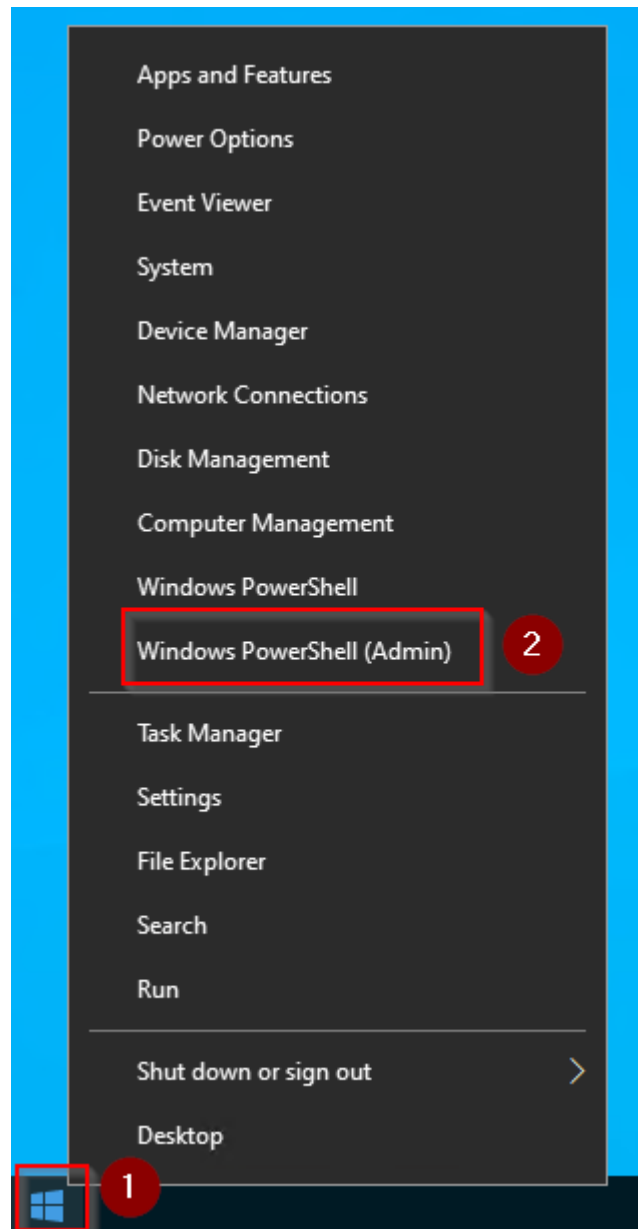


Click "Close" to finish the installation.

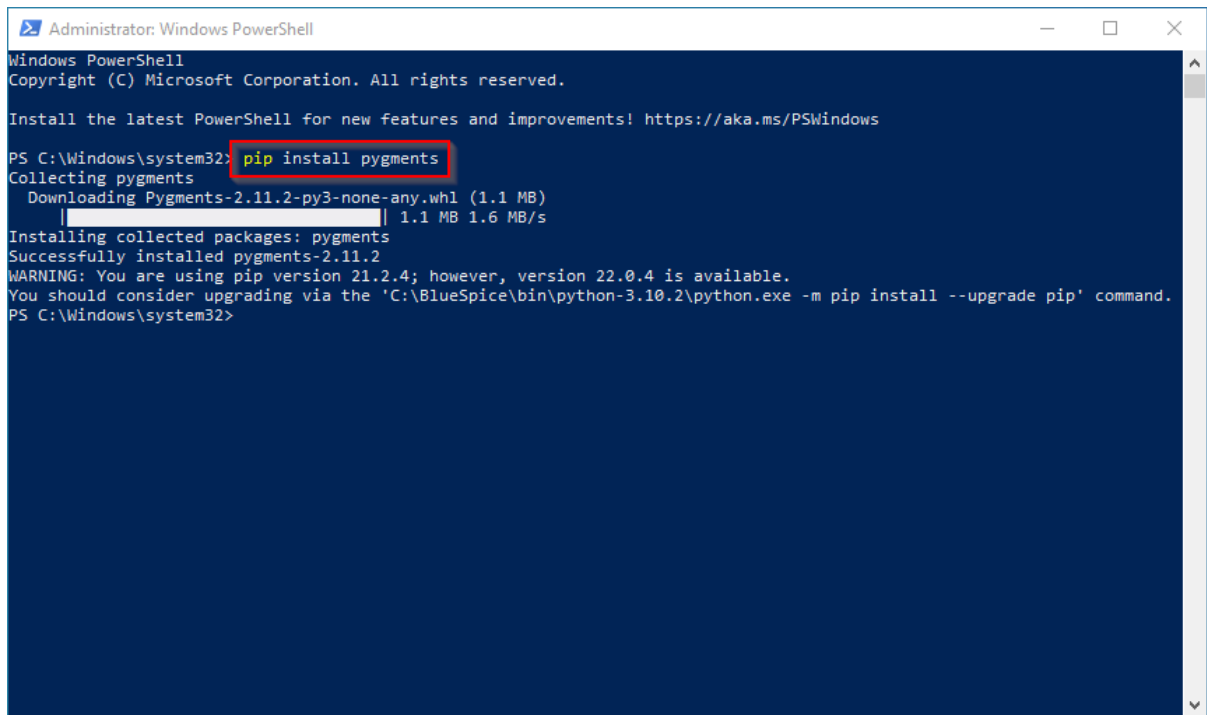


Installing Pygmentize

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



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



```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Windows\system32> pip install pygments
Collecting pygments
  Downloading Pygments-2.11.2-py3-none-any.whl (1.1 MB)
    |#####| 1.1 MB 1.6 MB/s
Installing collected packages: pygments
Successfully installed pygments-2.11.2
WARNING: You are using pip version 21.2.4; however, version 22.0.4 is available.
You should consider upgrading via the 'C:\BlueSpice\bin\python-3.10.2\python.exe -m pip install --upgrade pip' command.
PS C:\Windows\system32>
```

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

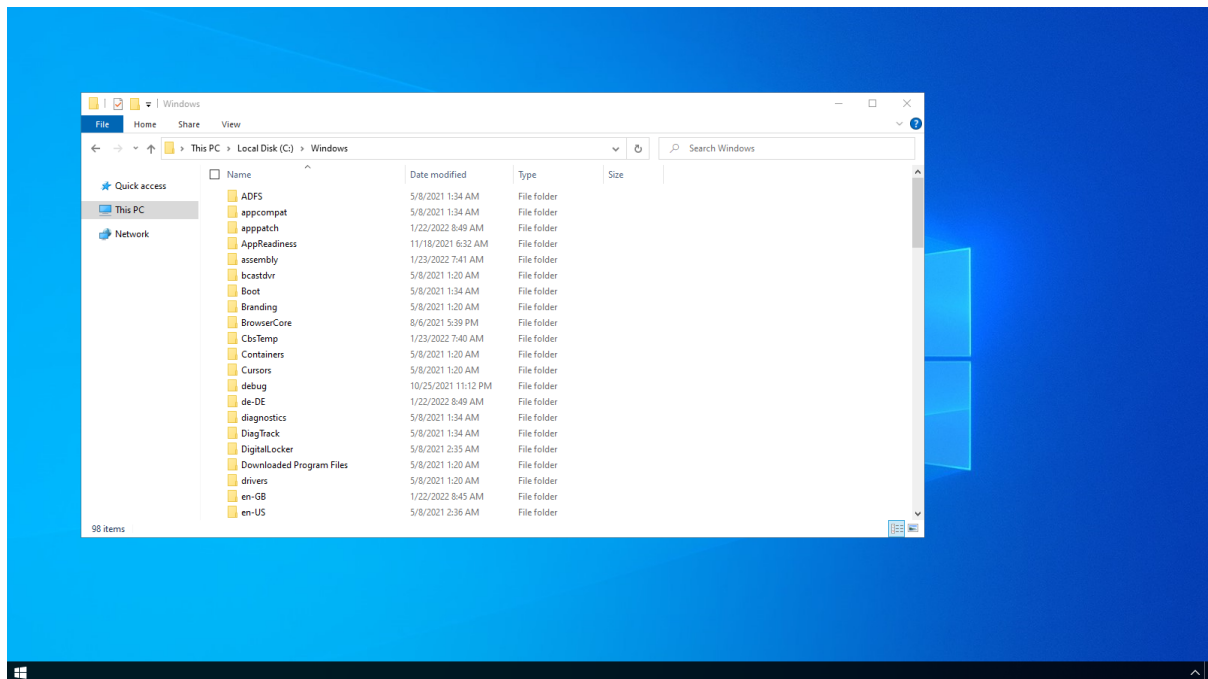
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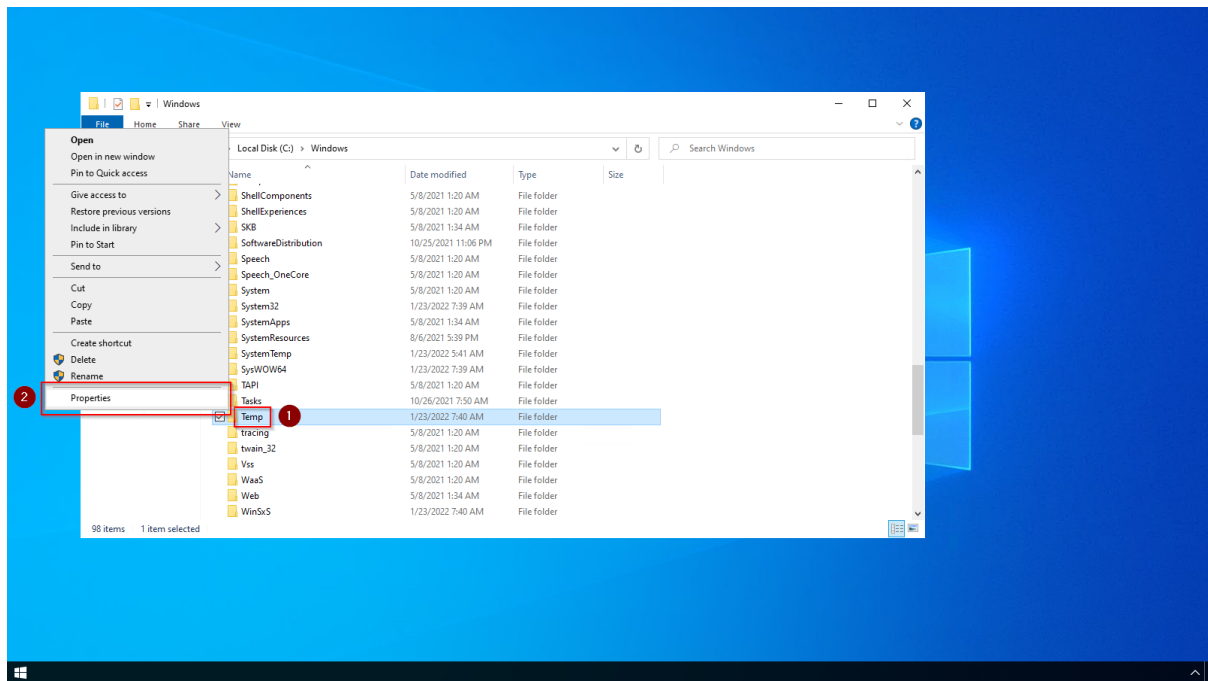
Various applications require rights to write to the C:\Windows\Temp folder. These are not set as needed by default. In order to be able to carry out all further steps smoothly and also to be able to operate BlueSpice, you must first set these rights.

Procedure

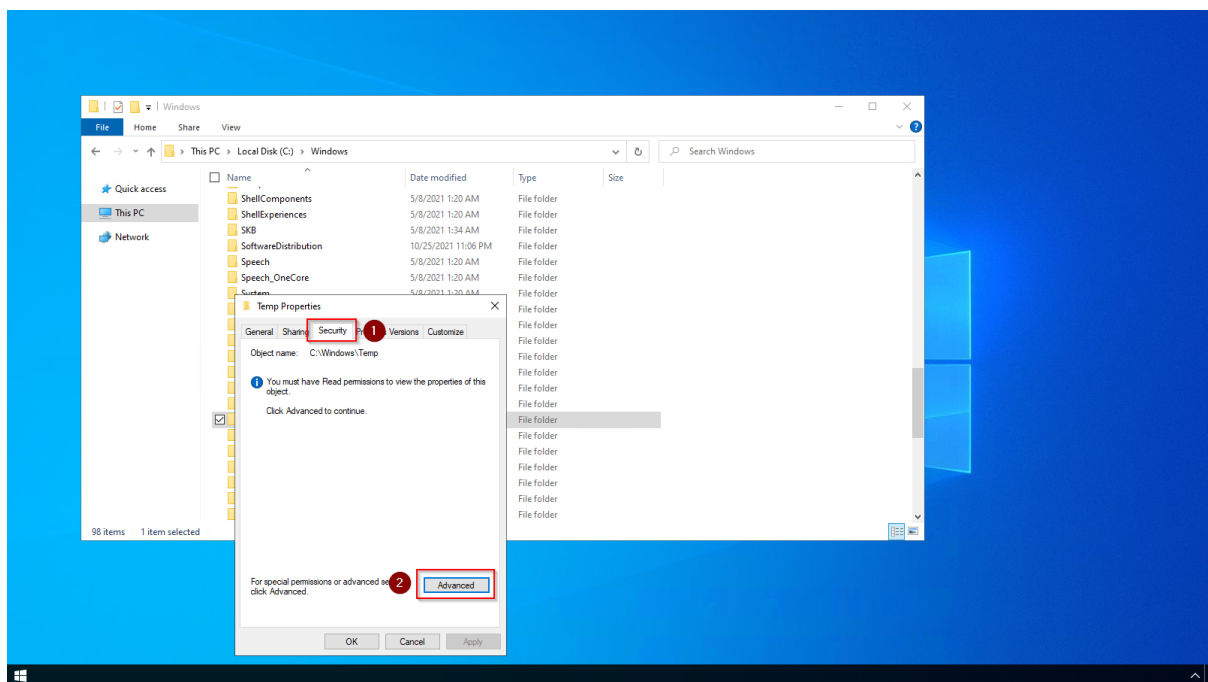
Open Windows Explorer:



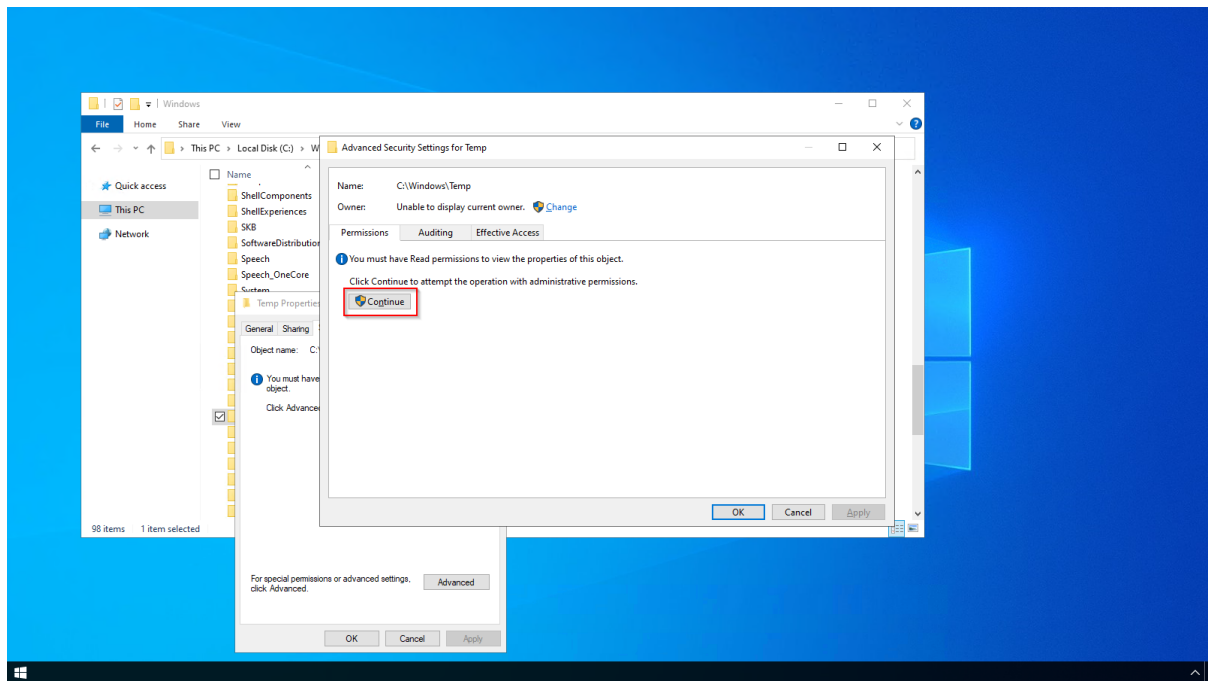
Right-click on the folder "Temp" (1) and open the "Properties" (2):



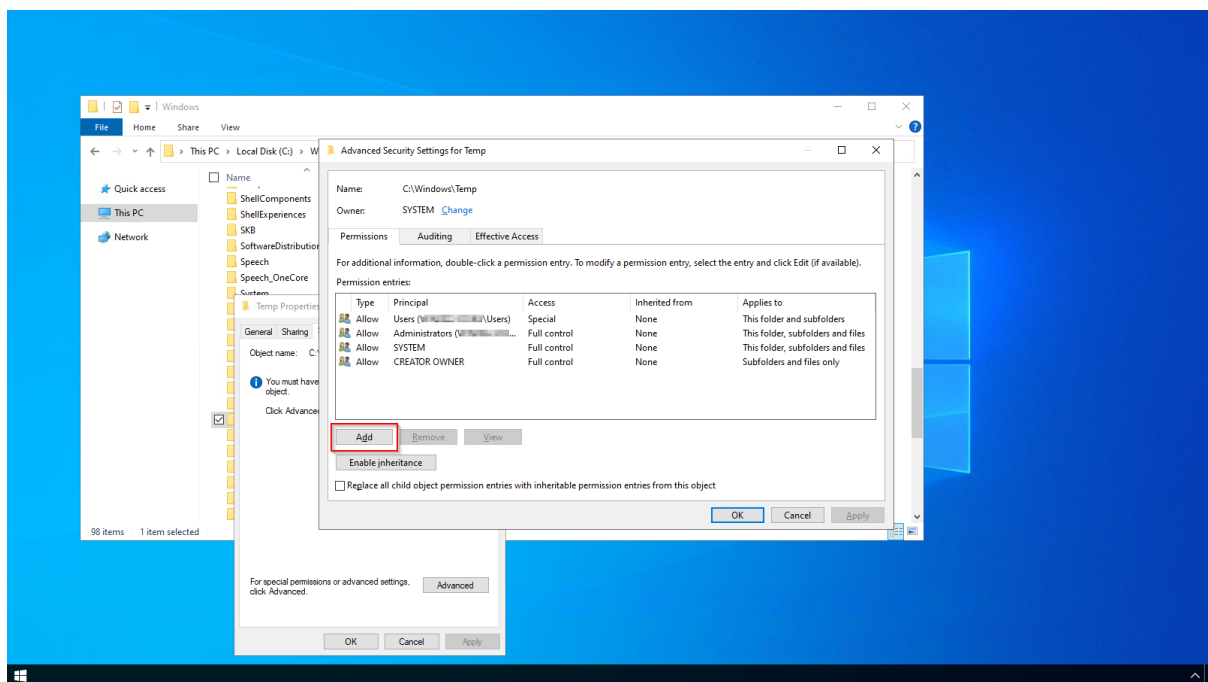
Select the tab "Security" (1) and **click** "Advanced" (2):



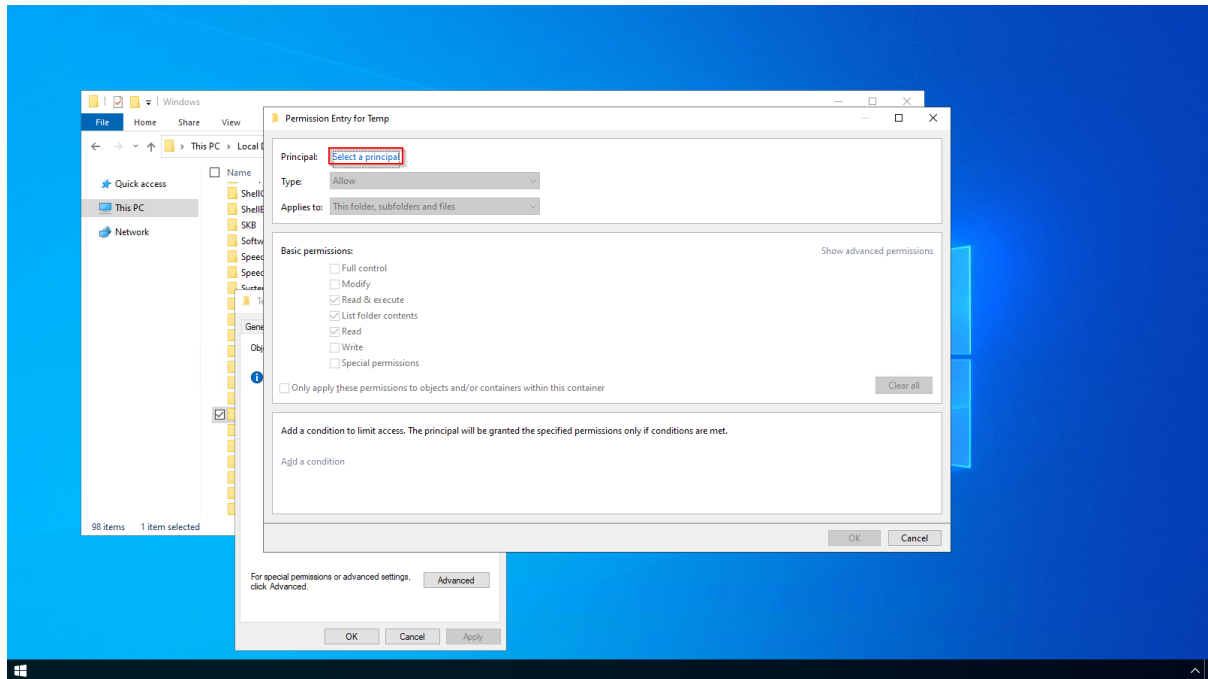
Click "Continue":



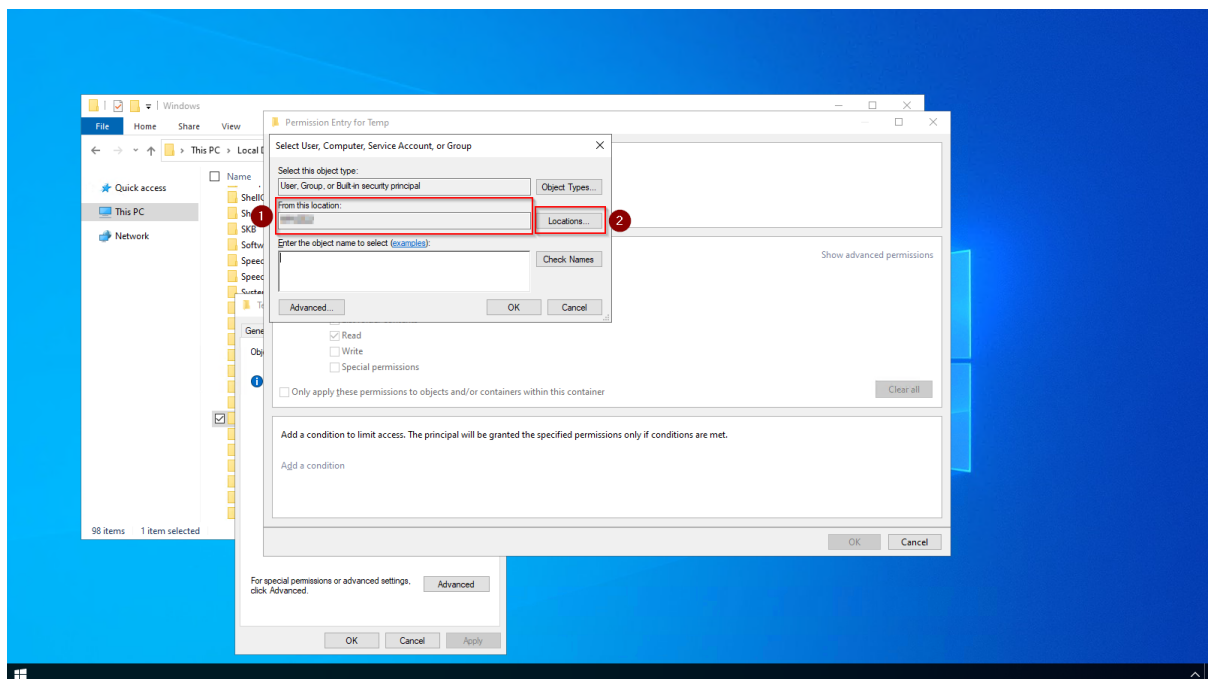
Click "Advanced":



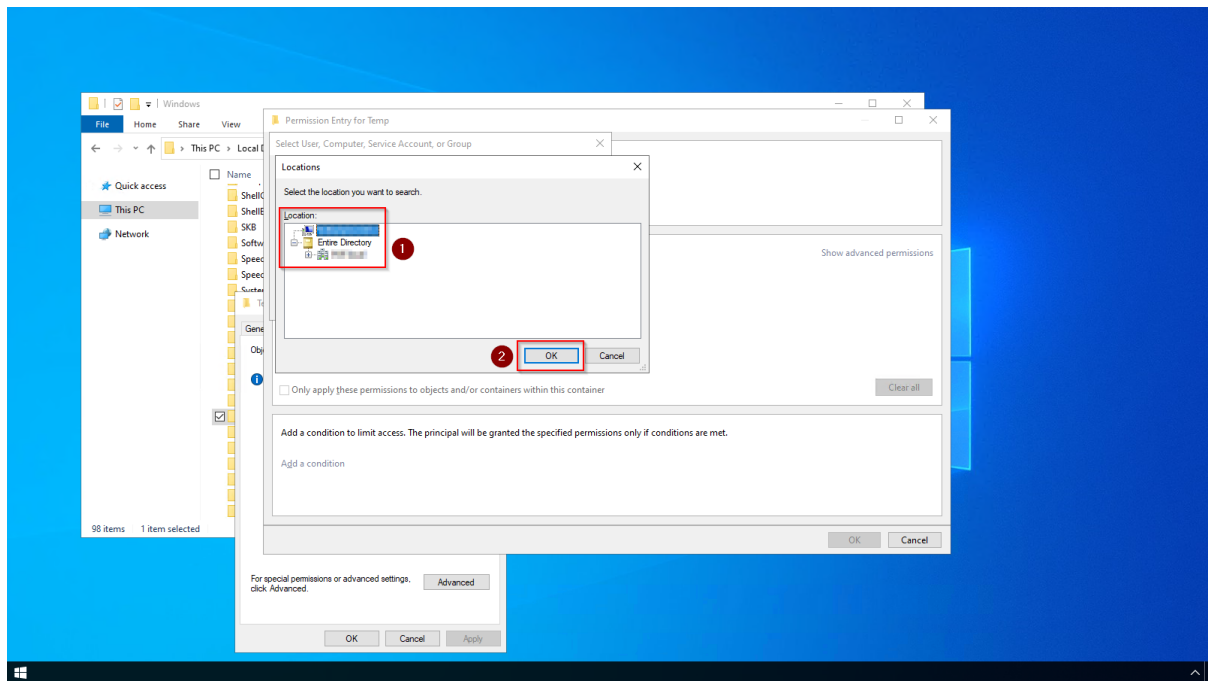
Click "Select a principal":



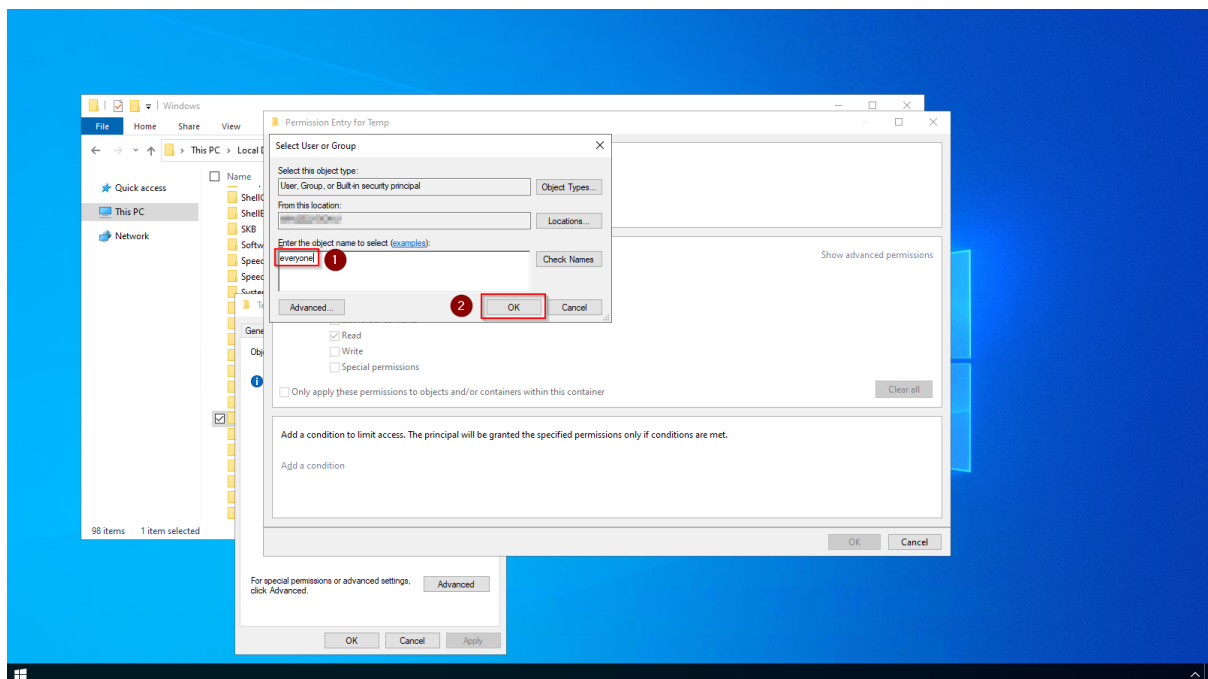
Ensure that your local machine is selected in the field "From this location" (1). If this is not the case, **open** "Locations..." (2):



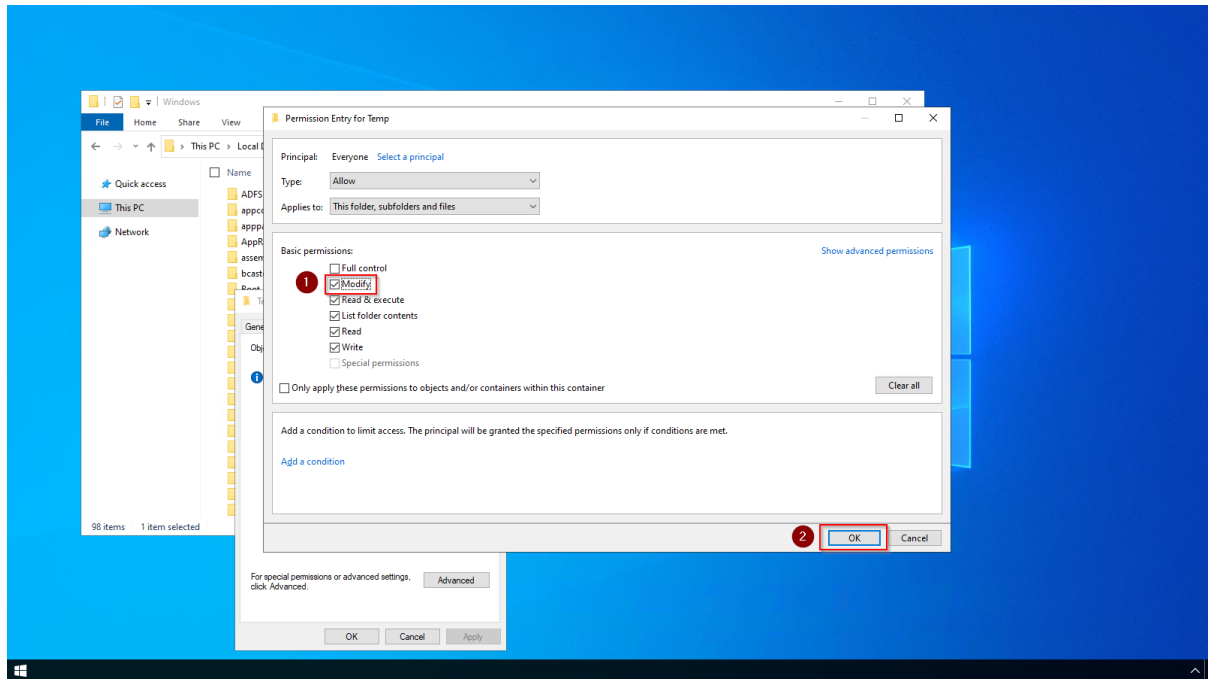
Choose the top path in the list (1) and close the dialog window (2):



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



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



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 /Vorwort

Redirect to:

- [Setup:Installation Guide/System Preparation/Windows/Introduction](#)

Setup:Installation Guide/System Preparation/Windows /urlrewrite

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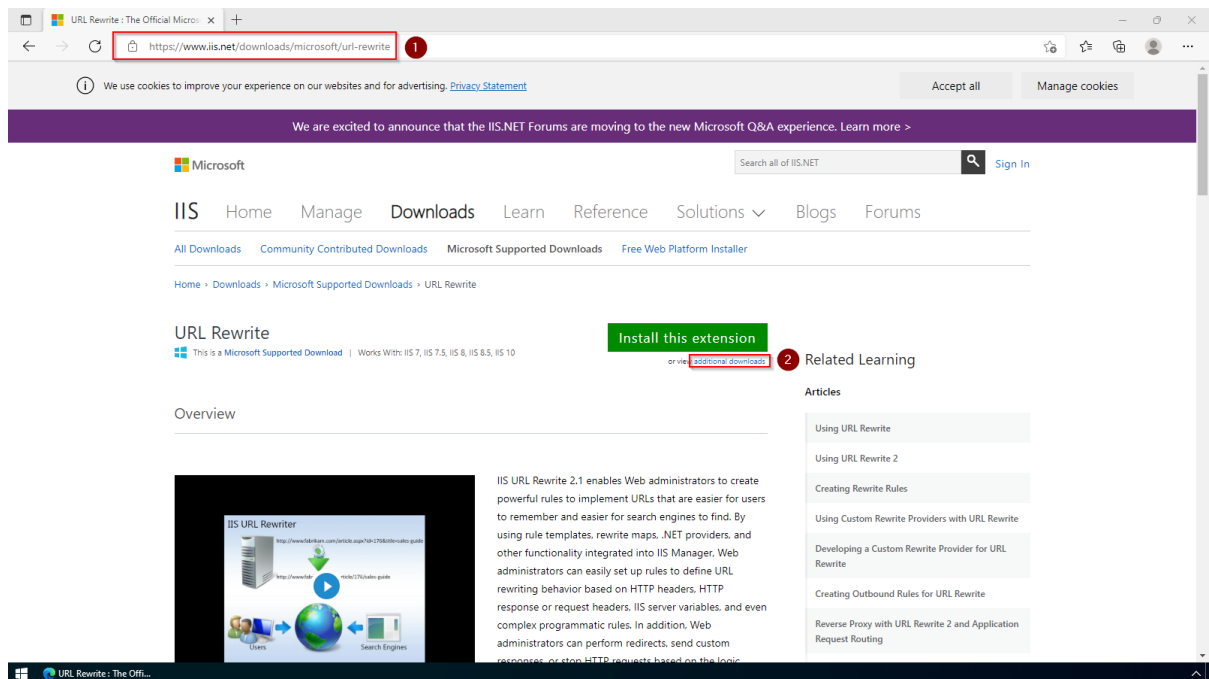
The "urlrewrite" module for IIS is only necessary if you want to configure redirection rules in your web server. If you want a setup which is recommended by us and also according to the recommendations of the Wiki Media Foundation, this step is required.

Download

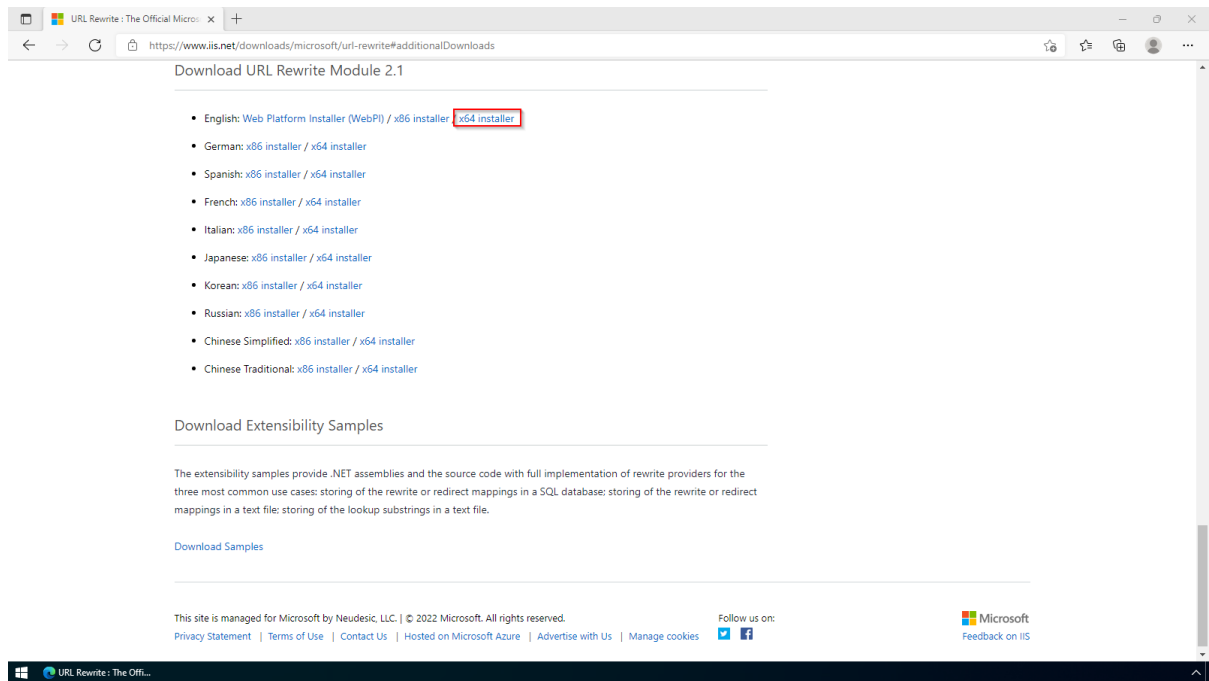


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Open the [official website at iis.net](https://www.iis.net) (1) and click "additional downloads" (2):

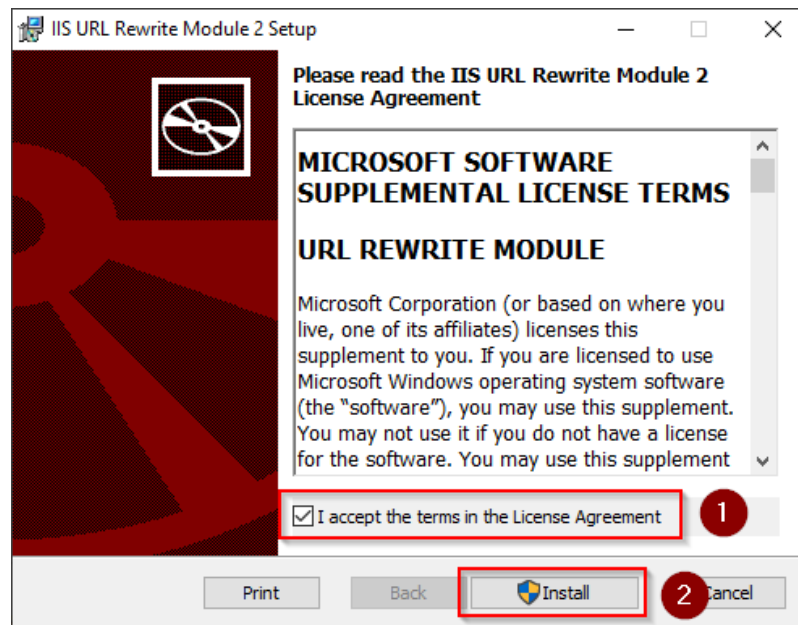


Download the "x64 installer" in your language:



Installation

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



Next step

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