

Contents

| 1. | Setup:Installation Manual/Webservices/Extended Search | . 2 |
|----|---------------------------------------------------------------------------|-----|
| 2. | Setup:Installation Guide/Advanced/ExtendedSearch Configuration | . 5 |
| 3. | Setup:Installation Manual/Services and system configuration/Apache Tomcat | . 6 |
| 4. | Setup:Installation Manual/System Configuration/Apache Tomcat | 11 |
| 5. | Setup:Installation Manual/System Configuration/Environment Variables | 11 |



Setup:Installation Manual/Webservices/Extended Search

Redirect to:

• Setup:Installation Guide/Advanced/ExtendedSearch Configuration

Contents

| 1 Tips for this Document | 3 |
|-----------------------------------------------|---|
| 2 Setting-up the Solr-Cores | 3 |
| 3 Configurating Tomcat | 3 |
| 3.1 Linux | 3 |
| 3.2 Windows | 4 |
| 4 Copying of the Solr Application | 4 |
| 5 Restarting Tomcat | 4 |
| 6 Activating the Extended Search in BlueSpice | 4 |
| | |



This document describes the installation of the extended search for BlueSpice. Please take into account, that the Apache Tomcat server must be installed and configured completely.

Tips for this Document

BlueSpice

- Please, read this manual completely and work through the single installation steps one after another.
- For editing the configuration files with a text editor, the files must be saved in UTF-8 coding without BOM (Byte Order Mark).
- The placeholder <installpath-bluespice> stands for the path to your BlueSpice installation, e.g C: \inetpub\wwwroot\bluespice (Windows) or /var/www/bluespice (Linux).
- The placeholder <tomcat-webapps> stands for the path to the Webapps directory of your Tomcat server, e.g. C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps (Windows) or /var/lib/tomcat8/webapps (Linux).

Setting-up the Solr-Cores

Create the following directory:

/opt/bluespice/data (Linux)
C:\BlueSpice\bluespice_data (Windows)

Move the directory "solr" from <installpath-bluespice>/extensions/BlueSpiceExtensions /ExtendedSearch/webservices to the just created directory.

Switch to this directory and go to the subfolder bluespice/conf/lang. Choose stopwords_<LANG>.txt there, which matches your language and replace the file stopwords. txt in the folder bluespice/conf (one level higher) with this file.



With Linux, please transfer the folder /opt/bluespice/data/solr recursively to the user and group, under which the Tomcat server is running.

Configurating Tomcat

The Tomcat server needs to know the directory to the Solr core. The following describes how to configure this.

Linux

The distributions differ at this point regarding the configuration file. How this needs to be configured with the distribution you are using can be found in the documentation of the distributor. The following steps explain the configuration using Debian/Ubuntu and Tomcat 8:



BlueSpice

Open the file /etc/default/tomcat8 and add the following line at the end:

JAVA_OPTS="\${JAVA_OPTS} -Dsolr.solr.home=/opt/bluespice/data/solr"

Save the changes and exit the file.

Windows

Open the configuration interface of Tomcat and switch to the tab "Java". At the field "Java Options", add this as the last point in the line:

-Dsolr.solr.home=C:\BlueSpice\bluespice_data\solr

| Apache To | omcat 8.5 Tomcat8 Properties |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| General Log On Loggin | g Java Startup Shutdown |
| Use default | |
| Java Virtual Machine: | |
| C:\Program Files\Java\ | ijre1.8.0_121\bin\server\jvm.dll |
| Java Classpath: | |
| C:\Program Files\Apach | he Software Foundation\Tomcat 8.5\bin\bootstrap |
| Java Options: | |
| -Djava.io.tmpdir =C:\Pr -Djava.util.logging.man -Djava.util.logging.com | rogram Files \Apache Software Foundation \Tom hager = org.apache.juli.ClassLoaderLogManage fig.file = C: \Program Files\Apache Software Fou |
| -Dsolr.solr.home=C:\Bl | ueSpice\bluespice_data\solr |
| Initial memory pool: | 128 MB |
| Maximum memory pool: | 256 MB |
| Thread stack size: | KB |
| | |

Save this settings by clicking at "Apply".

Copying of the Solr Application

Move the file "solr.war" from the directory <installpath-bluespice>/extensions /BlueSpiceExtensions/ExtendedSearch/webservices to <tomcat-webapps>

Restarting Tomcat

Restart the Tomcat Webserver like described here.

Activating the Extended Search in BlueSpice

Go to the directory <installpath-bluespice>/extensions/BlueSpiceExtensions. If the fileBlueSpiceExtensions.local.phpdoes not exist already, please copy the fileBlueSpiceExtensions.default.phpand paste it in the folder. Rename it toBlueSpiceExtensions.local.phpOpen this file in a text editor.

Scroll to the end of the file. There you can find the following line:

#require_once(__DIR__."/ExtendedSearch/ExtendedSearch.setup.php");

Delete the first character (#), save and exit the file.

Open a comman line and change to the directory <installpath-bluespice>. Run the following command there:

php maintenance/update.php (Linux)
php maintenance\update.php (Windows))



BlueSpice

MediaWik

With Windows, please take care that the environment variables are set correctly to access the command "php".



With Linux. please take care that after running the update.php, the file system permissions must be set again.

As soon as the script finished its work with the message "Done", run a further maintenance script to create the search index:

```
php extensions/BlueSpiceExtensions/ExtendedSearch/maintenance/searchUpdate.php (Linux)
php extensions\BlueSpiceExtensions\ExtendedSearch\maintenance\searchUpdate.php (Windows
))
```

Running this script may take some time. This depends on the amount of content, which has been created in the wiki. When the script was completely executed, the extended search is installed successfully and is ready to use.

ExtendedSearch configuration

A quality version of this page, approved on 2 December 2020, was based off this revision.

If the ElasticSearch service is up and running, you can enable BlueSpice Extended Search.

• Go to your BlueSpice install path. For example:



cd /var/www/bluespice

• Go to the folder *settings.d*:

```
cd settings.d
```

- Create a file in this folder and name it 020-BlueSpiceExtendedSearch.local.php.
- Put the following content in the newly created file.

```
<?php
wfLoadExtension( 'BlueSpiceExtendedSearch' );
$GLOBALS['wgSearchType'] = 'BS\\ExtendedSearch\\MediaWiki\\Backend\\BlueSpiceSearch';
```

• Go to your BlueSpice install path again. For example:

```
cd /var/www/bluespice
```

• Run the following scripts to build the search index.

```
php extensions/BlueSpiceExtendedSearch/maintenance/initBackends.php --quick
php extensions/BlueSpiceExtendedSearch/maintenance/rebuildIndex.php --quick
php maintenance/runJobs.php
```

Done! The extended search functionality is now active.

Apache Tomcat

A quality version of this page, approved on 17 October 2018, was based off this revision.

| Contents |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 Notes 8 2 Installation 8 2.1 Linux 8 2.2 Windows 8 2.2.1 Java 8 2.2.2 Tomcat 9 2.3 Installation Check 9 |
| 3 Configuration 9 3.1 context.xml 9 3.2 server.xml 10 |

Setup:Installation Manual/Webservices/Extended Search

Blue Spice MediaWiki

| 3.3 Restart Tomcat | . 10 |
|-------------------------------------|------|
| 4 Special features under Windows | 10 |
| 4.1 Configure Tomcat | 10 |
| 4.2 Restart Tomcat | 10 |
| 4.3 Setup Autostart | 11 |
| 4.4 Particular Caution: Java Update | 11 |
| | |



This document describes the configuration of the Apache Tomcat server, which is needed for the Webservices of BlueSpice.

Notes

BlueSpice

- Please, read this manual completely and work through the single installation steps one after another.
- For editing the configuration files with a text editor, the files must be saved in UTF-8 coding without BOM (Byte Order Mark).
- The placeholder <installpath-bluespice> stands for the path to your BlueSpice installation, e.g C: \inetpub\wwwroot\bluespice (Windows regarding the documentation "Folder structure under Windows ") or /var/www/bluespice (Linux).
- The placeholder <tomcat-webapps stands for the path to the webapps directory of your Tomcat server, e.g C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps (Windows) or /var/lib /tomcat8/webapps (Linux).

Installation

Linux

Install the latest version of the Apache Tomcat server in the package manager of your distribution. The package manager dissolves all dependencies and installs the required packages.

Windows

Java

Apache Tomcat requires the Java Runtime Environment. If these is not already installed at your system, download (www.java.com) and install it. We recommend the 64 bit version for latest systems.



Tomcat

BlueSpice

Download the "32-bit/64-bit Windows Service Installer" from the Tomcat project website. No modifications are necessary during the installation process. Confirm the single steps with "Next".

| Apache Tomcat Setup | Apache Tomcat Setup | Apache Tomcat Setup | Apache Tomcat Setup: Configuration Options 📃 🗖 🗙 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| License Agreement Please review the license terms before installing Apache Tomcat. | License Agreement Please review the license terms before installing Apache Toncat. | Choose Components Choose which features of Apache Torncat you want to install. | Configuration Tomcat basic configuration. |
| Hess Page Dawn Is see the rest of the agreement. Aschol Lotter Aschol Lotter Aschol Lotter Aschol Lotter Aschol Lotter As | Press Regis Down Is use the rest of the agreement. Image: Status Statu | Open the property provides to hulk and under the components you derive to hulk and under the component you derive to hulk an | Server Bhuddoon Port Dots HTTP).1 Gorrector Port B00 AP/1.2 Gorrector Port B00 AP/1.2 Gorrector Port B00 Window Service Port B00 Center brotch for al Loss Trancett Center brotch for al Loss Center Center brotch for al Loss Center Center brotch for al Loss Center Cente |
| 🗷 Apache Tomcat Setup: Java Virtual Machine path select 🗕 🗆 🗙 | Apache Tomcat Setup | Apache Tomcat Setup 📃 🗵 🗙 | Apache Tomcat Setup |
| Java Virtual Machine Java Virtual Machine path selection. | Choose Install Location Choose the folder in which to install Apache Tomcat. | Installing Please wait while Apache Torricat is being installed. | Completing the Apache Tomcat Setup Wizard |
| Please select the path of a Java SE 7.0 or later JRE installed on your system. | Setup will install Apache Tomcat in the following folder. To install in a different folder, click Browse and select another folder. Click Install to start the installation. | Extract: realm-howto.html | Apache Toncat has been installed on your computer. Click Finish to dose this wizard. |
| El (Program Metijavski je 1.8.0_12) | Destration Filder Strangen Kalvykova Schwart Kovaldon (renut 8.3) Specer seniels: 17. 768 | 2 You grade | Apache Tomcat 8 |
| Nullsoft Instal System v2.51 | Nullsoft Instal System v2.61 | Nullsoft Instal System v2.61 | |

Installation Check

If the Apache Tomcat server has been installed and started correctly can be checked by calling up *http://<host name-or-ip-of-the-server>:8080*. With a correct installation, the default page of the server will be displayed.

Configuration

Now, two configuration files of the Tomcat server need to be adjusted:

- context.xml
- server.xml

Those can - per default - be found at:

- with Windows: C:|Program Files|Apache Software Foundation|Tomcat 8.5|conf
- with Linux: /*etc/tomcatX* (the "X" stands for the particular Tomcat version)

context.xml

Replace the line

<Context>

with

<Context mapperContextRootRedirectEnabled="true">



server.xml

BlueSpice

Please make sure that the complete block

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

is as follows:

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

Restart Tomcat

Restart the Tomcat server:

- Linux: service tomcatX restart (the "X" stands for the particular Tomcat version)
- Windows: See below: Restart Tomcat

Special features under Windows

Configure Tomcat

All of the following settings need to be done in the configuration interface of Tomcat. These can be found in the start menu under "Configure Tomcat".

Restart Tomcat

The restart can be performed in the first tab of the configuration interface. Stop and then start the service there.

| Log | On Loggir | ng Java | Startup | Shutdown | |
|--------------|-------------|------------|-------------|----------------|-----------------|
| Service Nan | e: Tom | cat8 | | | |
| Display nam | a: Apa | ache Tomca | at 8.5 Tomo | tat8 | |
| Description: | Apa | ache Tomca | at 8.5.11 S | erver - http:/ | //tomcat.apache |
| Path to exe | outable: | | | | |
| "C:\Progra | m Files\Apa | che Softwa | are Founda | tion\Tomcat | 8.5\bin\Tomcat8 |
| Startup typ | Aut | omatic | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Service Stat | us: Start | ted | | | |
| Service Star | us: Starl | Stop | е | ause | Restart |



Setup Autostart

Tomcat will not automatically be started with Windows. This needs to be configured in the first tab, where you also start the service. Switch to "Automatic" under "Startup type" and save this changes with a click on "Apply".

Particular Caution: Java Update

Tomcat requires Java. The path for this is firmly defined in Tomcat. Java, however, changes the installation path with every update. Those needs to be configured in Tomcat after every update to guarantee the functionality of Tomcat.

To do this, switch to the tab "Java" and change the path to jvm.dll under "Java Virtual Machine" - normally this is

```
C:\Program Files\Java\>\bin\server\jvm.dll.
```

| | j Java | Startup | Shutdown | 1 | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------|--------|
| | | | | | |
| Use detault | | | | | |
| Java virtual Machine: | | | | | |
| C: Program Files Java (| re1.8.0_ | 121 (pin (ser | ver yvm.di | | ••• |
| Java Classpath: | | | | | |
| C:\Program Files\Apach | e Softwa | re Foundat | ion\Tomcat | 8.5\bin\bootst | rap |
| Java Options: | | | | | |
| Destalas have Cilla | ogram Eik | | | | _ |
| -Dcatalina.nome=C: Pri | оці ані гне | es (Apache : | Software Fo | oundation\Tom | \sim |
| -Dcatalina.home=C: \Pro | ogram File | s Apache S Apache S | Software Fo | undation\Tom undation\Tom | Â |
| -Dcatalina.nome=C: \Pro -Dcatalina.base=C: \Pro -Djava.io.tmpdir=C: \Pro -Djava.util.logging.man | ogram File ogram File ogram File ager=org | es (Apache S s (Apache S es (Apache S 1. apache . ju | Software Fo oftware Fo Software Fo li.ClassLoad | oundation \Tom undation \Tom oundation \Tom derLogManage | Î |
| -Dcataina.home=C: \rr -Dcatalina.base=C: \rr -Djava.io.tmpdir=C: \rr -Djava.util.logging.man | ogram File ogram File ager =org | es (Apache : s (Apache : es (Apache : j.apache.ju | Software Fo ioftware Fo Software Fo li.ClassLoad | oundation\Tom undation\Tom oundation\Tom ferLogManage | ~ |
| -Dcatalina.home=C: \rr -Dcatalina.base=C: \rr -Djava.io.tmpdir=C: \rr -Djava.util.logging.man | ogram File ogram File ager =org 128 | es (Apache : s (Apache : es (Apache : j.apache : ju | Software Fo Software Fo Software Fo II. ClassLoad | oundation\Tom undation\Tom oundation\Tom derLogManage MB | ~ |
| -Dcatalina.hom =:: \Pri -Dcatalina.bas =: C: \Pri -Djava.io.tmpdir=C: \Pri -Djava.util.logging.man Initial memory pool: Maximum memory pool: | ogram File ogram File ogram File ager=org 128 256 | es (Apache : s (Apache : es (Apache : j. apache : ju | Software Fo Software Fo Software Fo li.ClassLoad | oundation\Tom undation\Tom oundation\Tom derLogManage MB MB | ~ |

Setup:Installation Manual/System Configuration/Apache Tomcat

Redirect to:

Setup:Installation Guide/System Preparation/Windows/Apache Tomcat

Setup:Installation Manual/System Configuration/Environment Variables

Redirect to:

• Setup:Installation Guide/Services and system configuration/Environment Variables