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Setup:Installation Manual/Optimization

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Caching

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This document describes different caching options to enhance the performance of your BlueSpice installation.

Tips for the Document

- 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).

Linux vs. Windows

Please note that with equal hardware conditions, BlueSpice empirically runs more performantly on Linux than on Windows servers.

Indicate Cache-Directory

This forces BlueSpice to use the filesystem instead of the database for some internal caches. To do this, create the file `<installpath-bluespice>/settings.d/001-Directories.php` and add the following content:

```
<?php
$wgCacheDirectory = "$IP/cache";
```

Save and close the file.



Note that the directory "cache" in `<installpath-bluespice>` must be writable by the web server. For more information, read the [file system permissions](#).

Name Resolution of the Database

If this hasn't already been done while setting up MediaWiki, please make sure that the database server will be addressed via IP if it runs on the same server than BlueSpice. Especially Windows has problems with the resolution of "localhost".

To do this, open `<installpath-bluespice>/LocalSettings.php` and locate the variable **\$wgDBserver**. The line should ideally be:

```
$wgDBserver = "127.0.0.1";
```

Activate Memcached

Create the file `<installpath-bluespice>/settings.d/001-Memcached.php` and add the following content:

```
<?php
$wgMainCacheType = CACHE_MEMCACHED;
$wgSessionCacheType = CACHE_DB;
$wgMemCachedServers = [ "127.0.0.1:11211" ];
```

Save and close the file.



The prerequisite is an installed and configured memcached server on the BlueSpice server. Read the [memcached](#) article for more information.

Increase PHP Memory Limit

A higher memory limit of PHP results in a faster execution. ¶ This can be changed in `php.ini`. Locate and adjust the following option:

```
memory_limit = 512M (means 512 MB - varies from the available memory)
```

After saving and closing `php.ini`, the web server must be restarted.

Activate Bytecode Cache in PHP

Since PHP 5.5 the bytecode cache "opcache" is included.

This needs to be activated in the `php.ini` first. Check if the module is integrated there. This is done via the line:

```
zend_extension=opcache.dll (Windows)
zend_extension=opcache.so (Linux)
```



Please also note the specification of the distributor for activating PHP modules under Linux.

Please, do the following configuration of the opcache in php.ini. Normally, all options should already exist, but are commented out by semicolon (;) at the beginning of the line. Locate the respective option in php.ini, remove the semicolon at the beginning of the line and adjust the settings as follows:

```
opcache.enable=1
opcache.memory_consumption=512 (means 512 MB - varies from the available memory)
opcache.max_accelerated_files=5000
opcache.validate_timestamps=1
opcache.revalidate_freq=2
```

After saving and closing php.ini, the web server must be restarted.

Deactivate JobQueue

For this, read the [paragraph "runJobs.php" in the "Cronjobs" article](#).

Cronjobs

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This document describes cronjobs and related configurations, which should be set for your BlueSpice (depending on the used version).

Tips for this Document

- 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).

runJobs.php

Time-consuming processes will be moved to a processing queue in the background of BlueSpice. With every page impression, a part of these will be processed. For the case that there are lots of processes in the queue and there are relatively little page impressions, the tasks will not be processed promptly.

For this reason, the queue should be processed regularly by cronjob.

Now create a cronjob (Windows: "Scheduled task") depending on your operating system. The command to execute is:

```
php <installpath-bluespice>/maintenance/runJobs.php (Linux)
php.exe <installpath-bluespice>\maintenance\runJobs.php (Windows)
```



It is recommended to specify the complete path to php.exe under Windows. For more information, see the [environment variables](#) document.

Execute the cronjob every **10 minutes**.

processBsEmailBatch.php

For reports via email sent from MediaWiki, please create a cronjob and run it daily. The command for this is:

```
php <installpath-bluespice> /extensions/BlueSpiceEchoConnector/maintenance
/processBsfEmailBatch.phpn (/linux)
php.exe <installpath-bluespice> \extensions\BlueSpiceEchoConnector\maintenance\processB
sfEmailBatch.php (Windows)
```



It is recommended to specify the complete path to php.exe under Windows. For more information, see the [environment variables](#) document.

Time Zone

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Even if every user can change his time zone himself in the user settings, BlueSpice sets the default time zone "Europe/Berlin" when the user first logs in. This document describes how to change this if necessary.

Tips for this Document

- 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).

Changing the Time Zone

Copy the file `<installpath-bluespice>/settings.d/001-DefaultSettings.php` to `<installpath-bluespice>/settings.d/001-DefaultSettings.local.php` and open it. In delivery stat, you can find these two lines there:

```
$wgLocaltimezone = 'Europe/Berlin';  
$wgDefaultUserOptions['timecorrection'] = 'ZoneInfo|' . (date("I") ? 120 : 60) .  
'|Europe/Berlin';
```

Replace "Europe / Berlin" with your time zone. An overview of all possible time zones can be found in the [official PHP documentation](#).
Save and close the file.