

reference link -

https://make.wordpress.org/hosting/handbook/server-environment/#php-extensions

## PHP #PHP

PHP is a programming language on which WordPress code is based. This language runs on the server and it is important to keep it up to date, both for security and functionality.

WordPress supports many versions of PHP, some even obsolete, but as a general rule you should use only those with security or stable support.

Officially the WordPress core supports from PHP 5.6.20 to PHP 8.0. However, not all themes or plugins are supported.

When it comes to PHP, WordPress works best with the following versions:

- PHP 8.0
- PHP 7.4
- PHP 7.3

WordPress does work with PHP 5.6.20+. Versions prior to PHP 7.3 are not recommended because it doesn't have support of any kind, and only use PHP 7.3 if you have the latest version, since it only has security support.

## PHP Extensions #PHP Extensions

WordPress core makes use of PHP extensions. If the preferred extension is missing WordPress will either have to do more work to do the task the module helps with or, in the worst case, will remove functionality. Therefore the PHP extensions listed below are recommended.

- curl Performs remote request operations.
- dom Used to validate Text Widget content and to automatically configure IIS7+.
- exif Works with metadata stored in images.
- fileinfo Used to detect mimetype of file uploads.
- hash Used for hashing, including passwords and update packages.
- imagick Provides better image quality for media uploads. See <u>WP Image Editor</u> for details. Smarter image resizing (for smaller images) and PDF thumbnail support, when Ghost Script is also available.
- json Used for communications with other servers.
- mbstring Used to properly handle UTF8 text.
- mysqli Connects to MySQL for database interactions.
- openssl Permits SSL-based connections to other hosts.

- pcre Increases performance of pattern matching in code searches.
- sodium Validates Signatures and provides securely random bytes.
- xml Used for XML parsing, such as from a third-party site.
- zip Used for decompressing Plugins, Themes, and WordPress update packages.

For the sake of completeness, below is a list of the remaining PHP modules WordPress *may* use in certain situations or if other modules are unavailable. These are fallbacks or optional and not necessarily needed in an optimal environment, but installing them won't hurt.

- bcmath For arbitrary precision mathematics, which supports numbers of any size and precision up to 2147483647 decimal digits.
- filter Used for securely filtering user input.
- gd If Imagick isn't installed, the GD Graphics Library is used as a functionally limited fallback for image manipulation.
- iconv Used to convert between character sets.
- intl Enable to perform locale-aware operations including but not limited to formatting, transliteration, encoding conversion, calendar operations, conformant collation, locating text boundaries and working with locale identifiers, timezones and graphemes.
- mcrypt Generates random bytes when libsodium and /dev/urandom aren't available.
- simplexml Used for XML parsing.
- xmlreader Used for XML parsing.
- zlib Gzip compression and decompression.

These extensions are used for file changes, such as updates and plugin/theme installation, when files aren't writeable on the server.

- ssh2 Provide access to resources (shell, remote exec, tunneling, file transfer) on a remote machine using a secure cryptographic transport.
- ftp Implement client access to files servers speaking the File Transfer Protocol (FTP).
- sockets Implements a low-level interface to the socket communication functions based on the popular BSD sockets.

The priority of the transports are Direct file IO, SSH2, FTP PHP Extension, FTP implemented with Sockets, and FTP implemented through PHP alone.

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## System Packages <u>#System Packages</u>

- ImageMagick Required by Imagick extension
- <u>Ghost Script</u> Enables Imagick/ImageMagick to generate PDF thumbnails for the media library. See <u>Enhanced PDF Support in WordPress 4.7</u> for details.