


eZ publish Installation Guide



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Contents

1	Introduction	4
2	Pre-requisites	5
2.1	Needed Privileges	5
2.2	Needed Software	5
2.3	Which Software is Already Installed?	6
2.3.1	Systems Using RPM	6
2.4	FreeBSD	6
2.5	IRIX	6
2.6	Other Systems	6
2.7	Installation of Required Software	7
3	Compile Configuration	8
3.1	PHP	8
3.1.1	Unpacking	8
3.1.2	Configuration	8
3.1.2.1	Common	8
3.1.2.2	Command Line	9
3.1.2.3	Apache Module	9
3.1.2.4	Other Web Servers	9
3.1.2.5	Creating the Configuration	9
3.1.3	Compilation	9
3.1.4	Installation	9
4	Apache Configuration	10
4.1	Dual Virtual Host	10
4.1.1	Configuring Through httpd.conf	10
4.1.1.1	User Side	10
4.1.1.2	Admin Side	10
4.1.2	Configuring Through .htaccess	11
4.1.2.1	User Side	11
4.1.2.2	Admin Side	12
5	eZ publish Installation	13
5.1	Database	13
5.2	Program Files	13

Chapter 1

Introduction

“He who asks is a fool for five minutes, but he who does not ask remains a fool forever.”

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eZ publish is a content management system, among a lot of other things. This installation manual will try to cover the job of installing eZ publish on your server.

This manual covers installation on a Red Hat Linux system; most of what is described here can also be applied to other installations, especially if your system uses RPM for installation. For other systems you would need to do a lot of compiling yourself to make this work, or apply the system's own package manager.

Finding packages can be done directly from vendor sites, though you might not be guaranteed that you'll find the package you need. In such instances you need to download the source directly from the software developer.

Different distribution sites for different Unix systems are:

- Debian <http://www.debian.org/distrib/ftplist>
- IRIX <http://freeware.sgi.com/>
- Red Hat Linux <http://www.redhat.com/apps/download>
- SuSE Linux <http://www.suse.com/us/support/download/index.html>
- Sun <http://www.sunfreeware.com/>

The addresses to the software developers will be given where appropriate in the text.

A line starting with a hash-sign “#” are input from the user to the shell.

Chapter 2

Pre-requisites

2.1 Needed Privileges

For the standard installation (and for the moment the only method) of eZ publish you will need to have the following privileges on your system:

- Access to Apache's httpd.conf
- Access to compiler
- Access to Apache's modules
- Access to a MySQL database
- You might also need the privilege to add new libraries to your system.

You might also use other web servers than apache, but then you're on your own since we haven't tested eZ publish on other configurations. If you do try another web server, please keep a log of what you do and submit it to us (pkej@ez.no) for inclusion in future versions of this manual.

2.2 Needed Software

You also need to download and install the following packages, if they aren't present on your system already:

- MySQL (<http://www.mysql.com>) version 3.23 or later.
- libXml (<http://xmlsoft.org/#Downloads>) version 2.2.7
- libQdom () version
- ImageMagick (<http://www.imagemagick.org/>) newest version
- Apache (<http://httpd.apache.org/>) latest 1.3 release.
- Any and all modules you need for apache in addition to mod_php. (<http://modules.apache.org/>)
- PHP (<http://www.php.net/>) version 4.0.4p11 or later, you need the source code version.
- eZ publish (<http://developer.ez.no/>) version 2.0 or later stable releases.

The libraries and php will appear pre-compiled for Linux i386 on <http://developer.ez.no> in the future. The software is listed in the order of installation.

2.3 Which Software is Already Installed?

2.3.1 Systems Using RPM

RPM is a system for distributing pre-compiled software. The packages also contain pre-configured settings and initialisation files, leaving almost nothing to the user, except deciding what to install.

To check if a package is available on your system you can run the following command (RPM based systems “rpm -qa | grep <name of program/library>”. If you need to know where you can find the different files from that package you can follow up on the previous command with the following “rpm -ql <rpm name>”. RPM name is one of the returned names from the previous command, example:

```
# pkej@vogol:/etc/httpd > rpm -qa | grep libxml
libxml-1.8.7-80
libxmld-1.8.7-80
# pkej@vogol:/etc/httpd > rpm -ql libxml-1.8.7-80
/usr/bin/xml-config
/usr/lib/libxml.so.1
/usr/lib/libxml.so.1.8.7
/usr/share/doc/packages/libxml
/usr/share/doc/packages/libxml/AUTHORS
/usr/share/doc/packages/libxml/COPYING
/usr/share/doc/packages/libxml/COPYING.LIB
/usr/share/doc/packages/libxml/NEWS
/usr/share/doc/packages/libxml/README
/usr/share/doc/packages/libxml/TODO
```

2.4 FreeBSD

When installing and compiling PHP on a FreeBSD system you might encounter an error when using `--with-dom` which says you have a configure error on the lib. It turns out that the current port of libxml installs itself as `/usr/local/lib/libxml2.a|so` and it goes unrecognised by configure. You can easily get around this problem by linking the libs to `libxml.a|so`.

2.5 IRIX

By accessing the software manager (you must be root) you can get a list of installed software, scroll or search that list to find the packages you're interested in. Double click on the tabs to the left to get information about where specific files are installed.

2.6 Other Systems

On other systems you should read the documentation for that system to learn how to find out what software is already installed.

You could try to use the command “find” to find the software. It is used thus: “find . -name *<program name>*” from the `/usr/`, `/local/`, `/lib/`, `/share/` directories. In extreme cases you could try from the root of the system, but this will take a long time and will also hog resources on your computer. Therefore we urge you to learn how to use the proper installation features of your system to find the software already installed.

2.7 Installation of Required Software

If you've found pre-compiled versions of all the software packaged for use with an installation tool, you just have to install that software using the tool. Instructions for its usage is often found using the command "man <installation tool name>" or by reading your system's documentation or the supplier's website.

If you've had to download source code you will find instructions on how to compile and install the software you've downloaded at the software developer's website. This requires a bit of knowledge and you should only undertake this if you feel confident about the job.

This manual will only cover configuration of the software needed and compilation of PHP to use the other software.

Chapter 3

Compile Configuration

3.1 PHP

3.1.1 Unpacking

After you have downloaded PHP you need to unpack it somewhere where you can compile and configure the software. To unpack run the command:

- `# tar zxvf php-4.0.x.tar.gz`

Where the x is the version of php you've downloaded. Then you need to move into the directory you extracted php into:

- `# cd php-4.0.x`

3.1.2 Configuration

You'll need either an apache module or a command line version of PHP to use eZ publish on your website. We recommend you use PHP as an apache module. You will also need the command line version if you want to use the cron jobs for periodical updates of the eZ news feed module.

Thus for our recommended installation of PHP you need both the command line and module versions of PHP.

3.1.2.1 Common

Both the command line and apache module versions need to have the following configurations added to the configuration tool:

–enable-trans-sid This lets PHP use session id's which don't rely on cookies. It does not disable normal cookie based sessions.

(<http://www.php.net/manual/en/install.configure.php#install.configure.enable-trans-sid>)

–with-mysql This tells PHP that the mysql functionality should be used.

(<http://www.php.net/manual/en/install.configure.php#install.configure.with-mysql>)

–enable-magic-quotes This tells PHP to enable magic quotes by default. you can also turn this feature on and off on a directory by directory basis in either the “.htaccess” files (if you use them) or in the setup of the virtual server in “httpd.conf”.

(<http://www.php.net/manual/en/install.configure.php#install.configure.enable-magic-quotes>)

–with-dom This configures PHP to include libxml.
(<http://www.php.net/manual/en/install.configure.php#install.configure.with-dom>)

–with-qtldom This configures PHP to include libqtdom. It isn't up on the PHP site with a link, but it works as –with-dom.

You should also go through the web page: <http://www.php.net/manual/en/install.configure.php> and make sure that there isn't other functionality you would like to have included.

3.1.2.2 Command Line

The default is to create a command line version of PHP. Therefore you don't need to add more configuration options for this.

3.1.2.3 Apache Module

To build an apache module you need to add:

–with-apxs This compiles PHP as an apache module.
(<http://www.php.net/manual/en/install.configure.php#install.configure.with-apxs>)

3.1.2.4 Other Web Servers

We haven't tested our software with other web servers than apache. If you need to try out other web servers, read this document <http://www.php.net/manual/en/install.configure.php#install.configure.servers> to learn how you configure for the web server you will be using.

3.1.2.5 Creating the Configuration

Now you just have to run the “./configure” program with the appropriate configuration directives which we discussed in the preceding sections, for an apache module you'd do the following:

- # ./configure --enable-trans-sid --with-mysql --with-magic-quotes --with-apxs --with-dom --with-qtldom

Remember that to compile a script/cgi version you'd need to change that line to:

- # ./configure --enable-trans-sid --with-mysql --with-magic-quotes --with-dom --with-qtldom

3.1.3 Compilation

To compile you need to run the command “make”:

- make

3.1.4 Installation

To install your new PHP package you need to run the following command:

- make install

Chapter 4

Apache Configuration

For the moment we have only one solution for configuring apache.

4.1 Dual Virtual Host

4.1.1 Configuring Through httpd.conf

This set up is based on having two different virtual hosts for your administration back-end and the main site. The main site would typically be known as “www.yoursite.com” and the administration would be “admin.yoursite.com”; the names are up to you, theoretically you could have different names, for example “mysite.yoursite.com” and “administration.mysite.com”.

The virtual host is configured through the “httpd.conf” file which is the main configuration of Apache. Following is an example of such a host, remember to exchange everything within brackets (“[“ and “]”) with your preferred and local settings and also remove the brackets.

4.1.1.1 User Side

```
# User site
<VirtualHost [your.domain.com]>
<Directory [/your/apache/documentroot/publish_dist]>
Options FollowSymLinks Indexes ExecCGI
AllowOverride None
</Directory>
RewriteEngine On
RewriteRule ^/filemanager/filedownload/([^\+]+)/(.*)$
[/your/apache/documentroot]/publish_dist/ezfilemanager/files/$1
[T="application/octet-stream",S=1]
# The lines above should appear on the same line in your configuration file!
RewriteRule !\.(gif|css|jpg|png)$ [/your/apache/documentroot]/publish_dist/index.php
ServerAdmin ce@ez.no
DocumentRoot [/your/apache/documentroot]/publish_dist
ServerName [your.domain.com]
ServerAlias publish
</VirtualHost>
```

4.1.1.2 Admin Side

```
# Admin site
<VirtualHost admin.yourdomain.org>
<Directory [/your/apache/documentroot/admin]>
Options FollowSymLinks Indexes ExecCGI
AllowOverride None
</Directory>
RewriteEngine On
RewriteRule !\.(gif|css|jpg|png)$ [/your/apache/documentroot/admin/index.php]
ServerAdmin [your_mail@domain.no]
DocumentRoot [/your/apache/documentroot/admin]
```

```
ServerName [admin.yourdomain.org]
ServerAlias [admin.yourdomain.org]
</VirtualHost>
```

The format of the “httpd.conf” file is covered at <http://httpd.apache.org/docs/> for a complete understanding of the above information you’ll need to read that documentation.

The rewrite rules does the following:

```
RewriteRule ^/filemanager/filedownload/([^\s]+)(.*)$
[/your/apache/documentroot]/publish_dist/ezfilemanager/files/$1
[T="application/octet-stream",S=1]
```

This says that everything served from “/filemanager/filedownload/” should be redirected to fetch information from “publish_dist/ezfilemanager/files”. In other words, when people downloads a file from the filemanager, the file is served from the directory specified in the second part.

The “^” just after “RewriteRule” says that everything which starts with this, in other words it is a start of line marker. When working with an URL that is from the root of your site, ie. the part from the first slash after your domain name.

The “\$” sign is used to mark the end of line, in order to remember the full line.

The part “[T=“application/octet-stream”,S=1]” means that everything which is matched shall be of the specific mime type (“application/octet-stream”, ie. binary download). The “S=1” part means that if we match this rule, we should skip one rule ahead before trying to match again.

The next rewrite rule:

```
RewriteRule !\.(gif|css|jpg|png)$ [/your/apache/documentroot]/publish_dist/index.php
```

is found in both sites (admin and user). This means that every file, except gif, css, jpg and png (and files matched against the previous rule when in the user site) should be redirected to the file in the second part, ie. the index.php file. The reason for this is that we don’t want anyone trying to get direct access to anything which might be sensitive, or revealing about the site’s operation.

If you didn’t compile PHP with magic quotes; or other software relies on PHP not using magic quotes you can add the following line into each virtual host section:

- `php_value magic_quotes_gpc 1`

NOTE: It isn’t possible to use the form <http://mysite.com/admin> at all; since the admin module assumes that the url “/” is the start of the admin pages. If you do change eZ publish code in order to do this anyway; please send the code to bf@ez.no for future inclusion.

4.1.2 Configuring Through .htaccess

Instead of using httpd.conf and rewrite rules in the virtual hosts, you can also do the rewrite rules in the .htaccess files in directory specific configuration files.

Note: You must set up apache to accept this. You still need two domains for this operation!

4.1.2.1 User Side

In your main directory (/path/to/index.php/) create a file called “.htaccess” containing the following text:

```
• RewriteEngine On
RewriteRule ^/filemanager/filedownload/([^\s]+)(.*)$
/path/to/website/ezfilemanager/files/$1
[T="application/octet-stream",S=1]
#The lines above should appear on the same line in your configuration file!
RewriteRule !\.(gif|css|jpg|png)$ /path/to/website/index.php
```

4.1.2.2 Admin Side

In your admin subdomain home directory, create a file with the following text:

- RewriteEngine On
RewriteRule !\.(gif|css|jpg|png)\$ /path/to/website/admin/index.php

Note the extra "\" in the rewrite rule. Its slightly different to the line used in the httpd.conf method.

Chapter 5

eZ publish Installation

5.1 Database

Now you need to create a database in MySQL, the default name we use is publish, but you can change that to whatever pleases you.

- `# mysql -uroot -p publish < sql/publish.sql`

Add a publish user in MySQL. To add a user you can use the MySQL client to log on to mysql and then create the user:

- `# mysql>grant all on publish.* to publish@localhost identified by "secret";`

where secret is your password. Then you need to add the default eZ publish data into your newly created database:

- `# mysql -uroot -p publish < sql/publish.sql`

5.2 Program Files

The next step is to install the eZ publish package in your document root directory. First you need to unpack the software in a temporary directory:

- `# cd /tmp`
- `# tar zxvf /path/to/ezpublish-2.0.tar.gz`

The next step is to move the files to your document root:

- `# mv /tmp/publish_dist /your/apache/documentroot`

When all this is done you need to tell eZ publish a little about the site you're running. You'll need to edit the "site.ini" file which you will find in the document root:

- `# cd /your/apache/documentroot`
- `# vi site.ini`

Instead of `vi` you can use your preferred text editor. You'll need to add information about the username, hostname and password of your database. More information on what you can do with "site.ini" can be found in the "eZ publish Customisation Guide".

The next important step is to run the script `modfix`. This script will create symbolic links needed and set permissions.

- `# ./modfix.sh`

Chapter 6

Now What?

After installing eZ publish you can test your site through the URL <http://www.yoursite.com/> and you can administrate your site from the URL <http://admin.yoursite.com/>, of course, if you did anything different the names of the admin and the public site might be different.

NOTE: The default user name and password for your site will be admin/publish. Remember to change the password.

The next manual you should read is the “eZ publish Customisation Guide”, it tells you how to configure the software to use the functionality you want, as well as how you change the templates to suit your needs.

When you’re finished with the design and the initial testing you can head over to <http://ez.org/> for articles about community building as well as programming, or you can visit <http://developer.ez.no> for updates, articles about eZ publish and how to work with it, as well as keeping abreast of new developments.