


eZ publish Installation Guide



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Chapter 1

Introduction

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

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:

- AIX <http://www-frec.bull.com/docs/download.htm>
- Debian <http://www.debian.org/distrib/ftplist>
- IRIX <http://freeware.sgi.com/>
- HP-UX <http://hpux.connect.org.uk/>
- Red Hat Linux <http://www.redhat.com/apps/download> and <http://rpmfind.net>.
- SCOOpen Server/Unixware <http://www.sco.com/skunkware/>
- SuSE Linux <http://www.suse.com/us/support/download/index.html>
- Sun <http://www.sunfreeware.com/>

You can also try “The Written Word” (<ftp://ftp.thewrittenword.com/packages/free/by-name/gcc-2.95.2/>) for binaries for Solaris 2.5.1, 2.6, 2.7/SPARC, 2.7/Intel, IRIX 6.2, 6.5, Digital UNIX 4.0D, HP-UX 10.20, and HP-UX.

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.

1.1 Pre-Configured Hosting

It is possible to get pre-configured hosting services where you can install and manage your eZ publish site with ease. Read more about our hosting partners at eZ systems web site (<http://en.ez.no/article/articlestatic/73>).

1.2 Pre-Configured Hardware

It is possible to order pre-configured hardware from eZ systems. You can order through our web shop (<http://sourceprovider.com/>).

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
- ¹Access to compiler
- ²Access to a shell
- ³Access to cron jobs
- 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:

- ⁴MySQL (<http://www.mysql.com>) version 3.23 or later.
- ⁵libXml2 (<http://xmlsoft.org/#Downloads>) version 2.2.7 or later.
- ⁶libQdom (<http://www.trolltech.com>) is a part of QT, you need version 2.2.3 or later.

¹You will have to install the gcc compiler on your system, see chapter 1 for a list of sites providing software for different Unixes.

²You must run certain scripts during installation. Some of them are just creating links to different directories; you might therefore just create those links via FTP.

³Only needed if you want to use the eZ news feed module for regular updates of headlines imported from other sites.

⁴eZ publish requires MySQL for storage of its data.

⁵Needed by eZ article. If you wish to use the default article renderer you need libXml2 installed. You can create your own renderers if you don't want to use the default.

⁶Needed by eZ news feeds parsers. If you wish to include headlines from external sites (example developer.ez.no or slashdot.org) then you need this installed. You can create your own parsers if you don't want to use the default.

- ⁷ImageMagick (<http://www.imagemagick.org/>) newest version
- ⁸Apache (<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/>)
- ⁹PHP (<http://www.php.net/>) version 4.0.4pl1 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
```

You should test for qt, libxml and imagemagick to check if those are installed and working.

2.3.2 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.

⁷Needed by eZ article, eZ image catalogue, and all modules using images. You need only the command line version.

⁸It is always recommended to run the latest Apache release, though eZ publish shouldn't be very picky with the Apache versions. We've used eZ publish with Apache 1.3.13, some have reported that Apache 1.3.9 isn't useful.

⁹eZ publish uses references for objects and foreach loops. Only version 4.0.4pl1 and later supports both of these features satisfactorily.

2.3.3 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.

2.4 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.

2.4.1 Important Notice

You should read all the README, INSTALL and similar files found with the software packages you download. They often contain tips on how to configure, compile and install the software on your system. It will save you a lot of time and aggravation if you follow instructions supplied with the software.

If problems arise during installation of the software, please turn to the suppliers support forums, mailing list archives and FAQs, your questions will often be answered there. If the supplier’s forums doesn’t seem to help you, you should check the support forums at our site.

You should always do a search of the forums before posting any questions.

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 libqdom. 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 preceeding 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. There are other methods, and we'll document them in the future.

4.1 Dual Virtual Host

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.

```
# User site
<VirtualHost yourdomain.org>
<Directory [/your/apache/documentroot/]>
Options FollowSymLinks Indexes ExecCGI
AllowOverride None
</Directory>
RewriteEngine On
1RewriteRule ^/filemanager/filedownload/([^\.]*)/(.*)$
[/your/apache/documentroot]/publish_dist/ezfilemanager/files/$1 [T="application/octet-stream",S=1]
RewriteRule !\.(gif|css|jpg|png)$ [/your/apache/documentroot]/index.php
ServerAdmin [your_mail@domain.no]
DocumentRoot [/your/apache/documentroot/]
ServerName [yourdomain.org]
ServerAlias [www.yourdomain.org]
</VirtualHost>
# 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. You should note that you can't use any rewrite rules inside the <directory> part within the <VirtualHost>.

¹This line and the next should be written on the same line in your apache.conf file.

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`

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.

- `# mysqladmin create publish`

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.

Chapter 7

Trouble Shooting

7.1 Problems During Installation

7.1.1 FreeBSD 4.2 and libxml2

The current version (2.2.11) installs itself as /usr/local/lib/libxml2.a|so and goes unrecognized by configure (PHP). Link the fiels to /usr/local/lib/libxml.a|so.

7.1.2 Missing Compiler/Can not Compile (C++/C)

The ImageMagick package requires the GCC compiler. You'll need to download that compiler and install it on your system. In the introduction (see chapter 1) I listed some sites where you can download pre-compiled versions of software for some different Unix versions.

If you can't find a pre-compiled version try the GCC Home Page (<http://gcc.gnu.org/>).

7.2 Problems After Installation

7.2.1 Permission Denied

```
Warning: fopen("site.ini","r+")
```

```
Permission denied in classes/INIFile.php on line 80
```

If you get this error message you need to run the modfix.sh script.