eZ publish 2.2 Installation Guide

11th October 2001

Contents

Chapter 1

Introduction

> **"He who asks is a fool for five minutes, but he who does not ask remains a fool forever."**
> - Chinese proverb

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.

Since version 2.2 eZ publish has a new possible way to be installed: without virtual hosts and mod_rewrite. This makes it possible for people, who don't have a dedicated server or a specialized eZ publish hoster, to install eZ publish on their accounts as long as they have PHP and a supported database (e.g. mySQL or PostgreSQL).

This opens some new options for installing:

If you have an account at a webhoster with PHP and mySQL, your option should be chapter 3, because you won't be able to install eZ publish as it's explained in chapter 2.

If you have a dedicated server with Apache and mySQL already running and you don't want to mess with the Apache configuration, then chapter 3 might be of interest of you.

If you have a dedicated server and want some help on how to install all needed software and eZ publish on it, then chapter 2 is for you.

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://`ez.no/shop/hosting).

1.2 Pre-Configured Hardware

It is possible to order pre-configured hardware from eZ systems. You can order through or web shop (`http://`shop.ez.no).

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

Chapter 2

Installing eZ publish (standard[1] method)

This chapter is mainly intended for installation on a Red Hat Linux system, but a lot of friendly people have contributed information for installation on other operating systems, take a look at chapter 2 and learn which systems those are.

Most of what is described here regarding Red Hat installation 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 dirctly 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`)
- Mandrake, see chapter 2.9.
- 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 appropriated in the text.

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.

2.1 Prerequisites

2.1.1 Needed Privileges

For the standard installation of eZ publish you will need to have the following privileges on your system:

[1] An alternative install method is described in chapter 3

- Access to Apache's httpd.conf for creating two virtual hosts and for enabling the rewrite engine and creating rewrite rules. This is absolutely necessary for eZ Publish at the moment.
- Access to compiler, only needed if you can't use any of the pre-compiled packages available. (You will have to install the gcc compiler on your system, see chapter 1 for a list of sites providing software for different Unixes.)
- Access to a shell (You must run certain scripts during installation, and sometimes for maintenance.)
- Access to cron jobs (Only needed if you want to use the eZ news feed module for regular updates of headlines imported from other sites.)
- Access to Apache's modules
- Access to a MySQL or PostgreSQL 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.

2.1.2 Needed Software

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

- A database. Currently, eZ publish suppports MySQL (http://www.mysql.com) version 3.23 or later and PostgreSQL (http://www.postgresql.org) version 7.1.3 or later.
- libXml2 (http://xmlsoft.org/#Downloads) version 2.4.1 is recommended but versions as old as 2.2.9 is known to work. (Needed 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.)
- libQdom (http://www.trolltech.com) is a part of QT, you need version 2.2.3 or later. (Needed by eZ news feed's 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.)
- ImageMagick (http://www.imagemagick.org/) newest version (Needed by eZ article, eZ image catalogue, and all modules using images. You need only the command line version.)
- Apache (http://httpd.apache.org/) latest 1.3 release. (It 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.)
- mod_rewrite. This apache module is included in all recent versions of RedHat Linux. If you use an other distro, you may need to recompile apache with mod_rewrite
- Any and all modules you need for apache in addition to mod_php. (http://modules.apache.org/)
- PHP (http://www.php.net/) version 4.0.4pl1 or later. Version 4.0.6 is recommended. You need the source code version from this site, for windows you can just download the binary. (eZ publish uses references for objects and foreach loops. Only version 4.0.4pl1 and later supports both of these features satisfactorily.)
- eZ publish (http://developer.ez.no/) verision 2.0 or later stable releases.

The libraries and php are packaged pre-compiled for Linux i386 on http://developer.ez.no. The software is listed in the order of installation.
You should also find a list of RPMs at http://www.brandish.co.uk/phprpm

2.1.3 Which Software is Already Installed?

2.1.3.1 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 [2]:

```
# rpm -qa | grep libxml
libxml-1.8.7-80
libxmld-1.8.7-80
# 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
```

2.1.4 FreeBSD

When installing and compiling PHP on a FreeBSD system you might encounter an error when using –with-dom which says you have a conifgure 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.

You also have to add another link for the include files (which are in a quite strange place) : ln -s /usr/local/include/libxml2/libxml /usr/local/include/libxml

If people want to setup PHP4 by the ports, they also will have to modify the Makefile of the port to add the missing (from the port GUI) options which are –disable-magic-quotes and –with-qtdom. The other options are available from the port GUI.

Thanks to David Touitou for pointing this out.

2.1.5 Mandrake

First read chapter 2.9, then continue reading the manual from here.

2.1.6 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] A line starting with a hash-sign "#" are input from the user to the shell.

2.1.7 RAQ 3

There is a separate chapter 2.7 in this manual describing installation on a RAQ 3 server. It was kindly provided by Chris Mason,

2.1.8 Windows

Windows installation is described in its own chapter 2.8.

2.1.9 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.

2.1.10 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. Instructioins 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.

2.1.11 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.

2.2 Compile Configuration

2.2.1 PHP

Important : YOU NEED TO RECOMPILE PHP. No known Linux distros does yet have all the php features required by eZ publish. This means that you need to compile the php module from source.
You may find precompiled binaries for your system at the eZ publish web site, `http://developer.ez.no`. Take a look at the "Contributions" section in the download area.

2.2.1.1 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
```

2.2.1.2 Configuration

You'll need either an apache module or a command line (CGI) 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.

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)

–disable-magic-quotes This tells PHP to disable 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".

IMORTANT : From version 2.1[3] onwards magic quotes must be turned off for eZ publish to work properly.
(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-qtdom This configures PHP to include libqdom. It isn't up on the PHP site with a link, but it works as –with-dom.

–with-imap This configures PHP to include imap support. This is used by eZ mail module. This parameters require ssl support. Imap does also have bindings to kerberos. This causes some linking problems on RedHat Linux. The workaround for this problem is to type this command before you compile :

```
$ export LDFLAGS="-L/usr/kerberos/lib -lkrb5 -lgssapi_krb5 -lpam"
```

–with-openssl This will enable ssl support in PHP

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] eZ publish versions prior to 2.1 required magic quotes to be enabled

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.

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)

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.

Creating the Configuration Now you just have to run the "./configure" program with the apropriate 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-apxs --with-dom --with-qtdom
```

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

```
    # ./configure --enable-trans-sid --with-mysql
--with-dom --with-qtdom
```

2.2.1.3 Compilation

To compile you need to run the command "make":

```
    # make
```

2.2.1.4 Installation

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

```
    # make install
```

2.2.1.5 Compiling the php module on RedHat 7.x, step by step

First download the source from www.php.net. You should get a file called something like
php-4.0.6.tar.gz

First, unpack the tarball:

```
$ tar -xzf php-4.0.6.tar.gz
```

Now, enter the source directory

```
$ cd php-4.0.6
```

Apply the kerberos workaround:

```
$ export LDFLAGS="-L/usr/kerberos/lib -lkrb5 -lgssapi_krb5 -lpam"
```

Run the configure script:

```
$ ./configure --with-apxs=/usr/sbin/apxs --enable-ftp --with-xml --with-dom --enable-trans-
sid --with-config-file-path=/etc/httpd --with-mysql=/usr --with-pgsql=/usr --enable-inline-
optimization --with-ttf --with-qtdom --with-gd --enable-gd-native-ttf --with-imap --includedir=/usr
--with-openssl=/usr --with-zlib-dir=/usr --with-openssl=shared,/usr
```

Compile the module:

```
$ make
```

Install the module, either automaticly or manually.
Manually :

```
$ su
# cp .libs/libphp.so /usr/lib/apache
```

Automaticly:

```
$ su
# make install
```

Restart apache:

```
# /etc/rc.d/init.d/httpd restart
```

Verify that everything went OK.
Verify that apache was able to start:

```
# ps ax | grep httpd
```

Check the apache log

```
# tail -f 50 /var/log/httpd/error_log
```

IMPORTANT

When compiling php, please read chapter 2.6. Especially, take note of chapter 2.6.2.4. It might save you for hours with debugging

2.3 Apache Configuration

If you don't want to change the Apache configuration, go to chapter 2.

2.3.1 Dual Virtual Host

2.3.1.1 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, modify it to reflect your own installation and preferences, but before that be sure to add the "NameVirtualServer" directive to the configuration file. The directive is "NameVirtualServer ip-address" where the ip address is the address where the server will receive requests (http://httpd.apache.org/docs/mod/core.html#namevirtualhost).

You should consider using the utility which we have online for creating the configuration. The URL is http://developer.ez.no/virtualhost it will generate a setup with the latest needed information. The presented configuration herein might be slightly outdated, so we recommend the online tool.

User Site

```
# User site
<VirtualHost your.domain.com>
  <Directory /your/apache/documentroot/publish_dist>
    Options FollowSymLinks
    AllowOverride None
  </Directory>
  RewriteEngine On
  RewriteRule ^/stats/store/(.*).gif$
  /your/path/to/publish/ezstats/user/storestats.php [S=2]
  # The lines above should appear on the same
  # line in your configuration file!
  RewriteRule ^/filemanager/filedownload/([^/]+)/(.*)$
  /your/apache/documentroot/publish_dist/ezfilemanager/files/$1
  [T="application/oct-stream",S=1]
  # The lines above should appear on the same
  # line in your configuration file!
  RewriteRule !\.(gif|css|jpg|png)$ /your/apache/documentroot/publish_dist/index.php
  ServerAdmin your.e-mail@address
  DocumentRoot /your/apache/documentroot/publish_dist
  ServerName your.domain.com
</VirtualHost>
```

Admin Site

```
# Admin site
<VirtualHost admin.yourdomain.org>
  <Directory /your/apache/documentroot/publish_dist>
    Options FollowSymLinks
    AllowOverride None
    RewriteEngine On
    RewriteRule !\.(gif|css|jpg|png)$ /your/apache/documentroot/publish_dist/index_admin.php
  </Directory>
  ServerAdmin your_mail@domain.no
  DocumentRoot /your/apache/documentroot/publish_dist
  ServerName 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 directory “/your/apache/documentroot/publish_dist” is the directory where you extracted eZ publish.

Error Checking You can check that everything is correct with your rewrite rules by running “apache -s”, which will check for virtual hosts. There should also be an error log (consult the apache documentation) which you can read to check for errors.

Explanation of the Rewrite Rules The rewrite rules do the following:

```
RewriteRule ^/filemanager/filedownload/([^/]+)/(.*)$
/your/apache/documentroot/publish_dist/ezfilemanager/files/$1
[T="application/oct-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 evertything 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/oct-stream",S=1]"` means that everything which is matched shall be of the specific mime type ("application/oct-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 or index_admin.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 compiled PHP with magic quotes; or other software relies on PHP using magic quotes you can add the following line into each virtual host section:

```
php_flag magic_quotes_gpc off
```

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. The only correct way to access the admin site is through its own virtual host address.

2.3.1.2 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 filesm directory specific configuration files.

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

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

```
php_flag magic_quotes_gpc off
Options FollowSymLinks
RewriteEngine On
RewriteRule ^/stats/store/(.*).gif$
/publish/ezstats/user/storestats.php [S=2]
# The two lines above should appear on the
# same line in your configuration file.
RewriteRule ^/filemanager/filedownload/([^/]+)/(.*)$
/path/to/website/ezfilemanager/files/$1
[T="application/oct-stream",S=1]
# The three lines above should appear on the
# same line in your configuration file!
RewriteRule !\.(gif|css|jpg|png)$ /path/to/website/index.php
```

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

```
php_flag magic_quotes_gpc off
RewriteEngine On
RewriteRule !\.(gif|css|jpg|png)$ /path/to/website/index_admin.php
```

2.4 eZ publish Installation

2.4.1 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.sh".

```
# ./modfix.sh
```

2.4.2 Database

Some people might prefer to use phpMyAdmin (http://www.phpwizard.net/projects/phpMyAdmin/) for most of this part; we can not help you with installation of that program, though.

2.4.2.1 First time installation (MySQL)

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_mysql.sql
```

Adding Pre-Defined Data If you want to add the pre-defined data of the distribution you shouldn't add any data manually to the site before executing these commands.
First we need to add files and images which are needed by the database.

```
# tar zpxvf data.tar.gz
```

Then we need to run "modfix.sh" to make sure that everything is readable.

```
# ./modfix.sh
```

Then we need to send the SQL data into the database:

```
# mysql -upublish -ppublish publish < sql/data_mysql.sql
```

Finally we run clearcache[4] to make sure that everything presented is cached correctly:

```
# ./clearcache.sh
```

2.4.2.2 PostgreSQL configuration

Important note regarding PostgreSQL support in eZ publish:
PostgreSQL has one limitation which is not good for eZ publish:
Max length of indentifiers used in the database, table names, column names etc is default set to 32.
eZ publish uses names which sometimes are longer, e.g: eZImageCatalogue_ImageVariationGroup
Therefore you need to recompile PostgreSQL to support a larger value by altering:

#define NAMEDATALEN 64

in the file : src/include/postgres_ext.h

2.4.2.3 First time installation (PostgreSQL)

Login as user postgres

```
# su - postgres
```

Create a database

```
$ createdb publish
```

Create a dabase user

```
$ createuser publish -W
```

Create tables

```
$ psql -Upublish <sql/data_mysql.sql
```

You also need to enable PostgreSQL in site.ini. Change the" DatabaseImplementation" configuration so it reads:

DatabaseImplementation=postgresql

[4] A new feature in eZ publish 2.2 is the possibility of clearing the cache from the admin site

2.4.2.4 Updating the Installation

This section is for users who are updating from a previous version of eZ publish. There should be several files ending with ".sql" in the directory "updates". Run the files needed to update your version to the current. You need to apply all the updates for every version since your version.

2.5 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://zez.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.

2.5.1 Post Install Checklist

1. Does Apache run?
2. Does PHP run/work as an Apache module?
3. Does MySQL run?
4. Can you access your virtual hosts at all?
5. Does the user site work?
6. Does the admin site work?
7. Consider this: all eZ publish sites has an admin site, perhaps you should call the admin host something different than admin?
8. Check that you've downloaded and read the configuration manual. A quick tip is to read through the file "site.ini" and change any e-mail addresses, passwords etc. to fit your own choices.
9. Log in on your admin site (`http://admin.yoursite.com/`). You will be presented with a page which will list any install problems. If any problems appear read the error message presented and follow any instructions. If that fails, read the FAQ. Then go to `http://developer.ez.no` and search the forum for anyone who have had the same problem. Also check the bug list for any open bugs covering your problem. Finally you should register to the mailing list and try asking for help there.
10. If everything is okay go to the "user" module and change the e-mail address of the site administrator immediatly.
11. Change the password of the administration user to something only you know.
12. Start browsing the public part of your site, just to check that everything is working; some of the articles supplied as default will inform you about features of the software.
13. Check that ImageMagick is working. Try to upload an image to your site.

2.6 Troubleshooting

2.6.1 Problems During Installation

2.6.1.1 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 files to /usr/local/lib/libxml.a|so.

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

When compiling php and other support programs (like ImageMagick) you need the GCC compiler. It is recommended that you use the GCC compiler which was shipped with your Linux distro/unix system. In the introduction (see chapter 1) it listed some sites where you can download pre-compiled versions of software for some different Unix versions. Please note that you must compile php on your own.

2.6.1.3 I am getting linking errors when trying to build PHP

The PHP module you have compiled will be linked agains kerberos. This causes some linking problems on RedHat Linux. The workaround for this problem is to type this command before you compile :

```
$ export LDFLAGS="-L/usr/kerberos/lib -lkrb5 -lgssapi_krb5 -lpam"
```

2.6.2 Problems After Installation

2.6.2.1 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.

2.6.2.2 Can not see Images

ImageMagick is not working, make sure that it is working by using the command line command “convert”.

2.6.2.3 Warning about Temp Directory

If you get any such warning you need to set the temp directory in php.ini.

2.6.2.4 After installing my new php module, apache dies immediately.

RedHat as released new versions of the openssl packages for RedHat 7.x[5]. If these erratas is installed before you compile php, your php module will be linked agains these. This will however brake mod_ssl, which is linked to the old openssl libraries. There are two different ways to fix this:
Uninstall mod_ssl:

rpm -e mod_ssl

Or you may download the apache source rpm from redhat. Then recompile and install it.

If this doesn’t help, look for clues in /var/log/httpd/error_messages

[5] The problem described here may only apply to RedHat 7.0

2.7 Installing on RAQ 3

Installing ezPublish on raq3 without messing up the GUI or voiding the warranty.

This is untested by eZ systems, and we provide this “as is” without any form of guarantee or endorsement, either explicitly or implicitly.

First, add the domain into the DNS, but do not create a virtual site.

Log in by telnet (install SSH unless you are desperate to get hacked).

Put the publish files in the directory you want to use, I used /home/sites/extrasites/mysite/web

Install mysql 3.23 or later by rpm, there is one out there. MySQL (http://www.mysql.com) version 3.23 or later if you want to compile

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
```

Then get:

- http://www.freesoftware.com/pub/infozip/zlib/ (zlib.tar.gz)
- http://www.boutell.com/gd (gd-1.8.4.tar.gz)
- ftp://ftp.uu.net/graphics/jpeg/jpegsrc.v6b.tar.gz (jpegsrc.v6b.tar.gz)
- http://www.php.net (php-4.0.4pl1.tar.gz)

Delete all gd.h files on your system. You can find them using:

```
# find / -name gd.h
```

If there are more than one, then delete all of them.

Now add the following line to the /etc/ld.so.conf file:

```
/usr/local/lib
```

Save the file, and run:

```
# /sbin/ldconfig
```

This was an important part, because Apache needs this dir to find the correct modules.

Extract the zlib archive:

```
# tar -zxvf zlib.tar.gz # cd zlib-1.1.3
```

And install it:

```
# ./configure --shared
# make
# make install
```

Now install the JPEG-6b, doing the following:

```
# tar -zxvf jpegsrc.v6b.tar.gz
# cd jpeg-6b
# ./configure --enable-shared
# make
# make install
```

Install the PNG library

```
# wget http://www.libpng.org/pub/png/src/libpng-1.0.9.tar.gz
```

Then compile the package.
Get Imagemagick ImageMagick (http://www.imagemagick.org/) newest version Download and then:

```
# tar -zxvf Imagemagick-xxx
# cd Imagemagick-xxx
# ./configure
# make
# make install
```

Then go one directory back, and extract the GD archive using:

```
# tar -zxvf gd-xxx
# cd gd-xxx
```

Now edit the Makefile (using vi or pico) and check which modules you want. I removed the Freetype Library (-DHAVE_LIBFREETYPE / -lfreetype). After making the changes save the file and go back to the shell. Now compile GD:

```
# make
# make install
```

If this is giving any errors, just remove the modules you don't have (but don't remove the JPEG lib - we need that one ! :)))
Now go back one dir, and extract PHP4:

```
# tar -zxvf php-4.0.4pl1.tar.gz
# cd php-4.0.4pl1
```

First remove any cache:

```
# rm config.cache
# make clean
```

```
#./configure --with-xml --with-mysql \
--with-apxs=/usr/sbin/apxs \
--with-system-regex \
--with-zlib \
--enable-safe-mode \
--with-gdbm \
--enable-sysvsem \
--with-ftp \
--with-config-file-path=/etc/httpd/conf/ \
--with-exec-dir=/usr/sbin/httpd \
--with-dom \
--enable-trans-sid
# make
# make install
```

run /sbin/ldconfig again.
Apache: (Your milage may vary, be wary of paths)
edit /etc/httpd/conf/httpd.conf and add the Loadmodules lines like this:

```
# Extra Modules
LoadModule php_module modules/mod_php.so
LoadModule php3_module modules/libphp3.so
LoadModule perl_module /usr/lib/apache/libperl.so
LoadModule php4_module /usr/lib/apache/libphp4.so
LoadModule php4_module lib/apache/libphp4.so
```

Reconstruction of the complete module list from all available modules
(static and shared ones) to achieve correct module execution order.
[WHENEVER YOU CHANGE THE LOADMODULE SECTION ABOVE UPDATE THIS, TOO]

```
ClearModuleList
# Extra Modules
AddModule mod_php.c
AddModule mod_php3.c
AddModule mod_perl.c
AddModule mod_php4.c
```

Add the second line below line below the rewrite stuff, above the <Virtualhost> directives.
NameVirtualHost 216.97.67.4 Include /etc/httpd/conf/extrasites.conf <VirtualHost 216.97.67.4>
create this include file and in it put the apache vitual server directives for your site.
For example:

```
# User site
<VirtualHost yourIP>
  ServerName yourdomain.org
  ServerAlias www.yourdomain.org
  <Directory /your/site/root/>
    Options FollowSymLinks
    AllowOverride None
  </Directory>
  RewriteEngine On
```

```
  RewriteRule !\.(gif|css|jpg|png)$ /your/site/root/index.php
  ServerAdmin your_mail@domain.no
  DocumentRoot /your/site/root/
</VirtualHost>

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

restart apache:

```
# /etc/rc.d/init.d/httpd stop
```

wait a few seconds then

```
# /etc/rc.d/init.d/httpd start
```

Then chown httpd.httpd * on both the domain and admin.domain directories to get it to work.
If all is well, your site should work.

2.7.1 Getting SSL to Work

This is a bit tougher! Enable SSL for the site in your GUI. Generate your certificates. Disable SSL in the GUI. Add this to the end of your extrasites.conf

```
#attempt to modify
SSL Listen xxx.xxx.xxx.xxx:443
<VirtualHost xxx.xxx.xxx.xxx:443>
    ServerAdmin ubong
    DocumentRoot /home/sites/yoursite/web
    <Directory /home/sites/yoursite/web>
        Options FollowSymLinks
        AllowOverride None
    </Directory>
    SSLEngine on
    SSLCertificateFile /home/sites/yoursite/certs/certificate
    SSLCertificateKeyFile /home/sites/yoursite/certs/key
    AddHandler server-parsed .shtml
    AddType text/html .shtml
    AddHandler cgi-wrapper .cgi
    AddHandler cgi-wrapper .pl
    RewriteEngine On
    RewriteRule !\.(gif|css|jpg|png)$ /home/sites/public.edge.ai/web/index.php
```

```
        ErrorLog /home/sites/yoursite/logs/error_log
        TransferLog /home/sites/yoursite/logs/access_log
    </VirtualHost>
```

This should work. IF you can't get it, give me an email and I'll help if I have time: chris@net.ai

2.8 Installing on Windows

Please download and read the Windows documentation from the eZ publish site (http://developer.ez.no). Check the "File Archive" link under "Downloads" . It covers all the steps needed for a working installation under Windows using Apache.

2.9 Mandrake

Thanks to Mark Polsen for giving us this information.

This is untested by eZ systems, and we provide this "as is" without any form of guarantee or endorsement, either explicitly or implicitly.

2.9.1 Download the Following

Download what you need from `http://developer.ez.no/filemanager/list/23/` and install the rpms!

That's all; read the manual from the start after that, and install eZ publish as described.

Chapter 3

Installing eZ publish without virtual hosts and mod_rewrite

Installing eZ publish this way has several advantages:

- no root rights needed
- no virtual/dual hosts or mod_rewrite needed
- no subdomains needed
- no change of Apache configuration needed
- installation in subdirectories possible
- you can keep your old documents on the server

The disadvantages are:

- the URLs will be "[...]/index.php/article/articleedit/[...]" instead of "[...]/article/articleedit/[...]"
- new feature in 2.2, so it's not as well tested as normal dual hosts install

3.1 Prerequisites

The following software must be running on your server and you must have permissions to use it:

- PHP (`http://www.php.net`) version 4.0.4pl1 or later.
- A supported database:
  - MySQL (`http://www.mysql.com`) version 3.23 or later
  - PostgreSQL (`http://www.postgresql.org`) version 7.1.3 or later

The following software is optional, but required for some modules of eZ publish:

- libQdom (`http://www.trolltech.com`) is a part of QT, you need version 2.2.3 or later. (Needed by eZ news feed's 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.)
- ImageMagick (`http://www.imagemagick.org`) newest version (Needed by eZ article, eZ image catalogue, and all modules using images. You need only the command line version.)

3.2 eZ publish installation

3.2.1 Installing in one directory (Recommended install)

3.2.1.1 Installing the files for eZ publish

1. Extract the eZ publish files (if you want some example data, extract `data.tar.gz` too) and if they are not on the server yet, transfer them to the server in a directory of your choice.
   (example: `/home/userA/ezpublish` reachable by `http://www.yourserver.com/ezpublish`)
2. Copy `installation/htaccess-nVH` to `.htaccess` in the top directory of your eZ publish installation.
   (example: `/home/userA/ezpublish/.htaccess`)
3. Edit the file `sitedir.ini` and set the right directory.
   (example: `/home/userA/ezpublish/`)

3.2.1.2 Database installation

If you have shell access to create the database, see section 2.4.2.

1. Create a database (e.g. `publish`)
2. Create a user and give him permissions to access it
3. Create the data structures for eZ publish with file `sql/publish_mysql.sql` or `sql/publish_postgresql.sql`
4. If you extracted `data.tar.gz` before, you should also fill the database with the example data in file `sql/data_mysql.sql`

3.2.1.3 Finishing the install

1. Rename `site.ini` to `site.ini.php` and edit it.
2. Test if you can access `sitedir.ini` with a WWW browser
   (example: `http://www.yourserver.com/ezpublish/sitedir.ini`).

   a) If you get a “Forbidden”, everything is good and safe.
   b) If you get the file, then your server doesn’t obey `.htaccess` files. Try the next install in section 3.2.2, it is much safer then. Otherwise you can still use eZ publish, but have to remember that it is not as safe as it could be.
3. Finished!!
   Go to `http://www.yourserver.com/ezpublish/index_admin.php`, login as `admin` with password `publish` and change your password. Then go to `http://www.yourserver.com/ezpublish`. Have fun.

3.2.2 Installing with shell access on server and two separate directories for eZ publish

If you have shell access on your server and you have the possibility to create directories which are not accessible by WWW browsers, you can use the script `ezinstaller.sh`. It will ask you all relevant questions and install eZ publish in a very secure way.