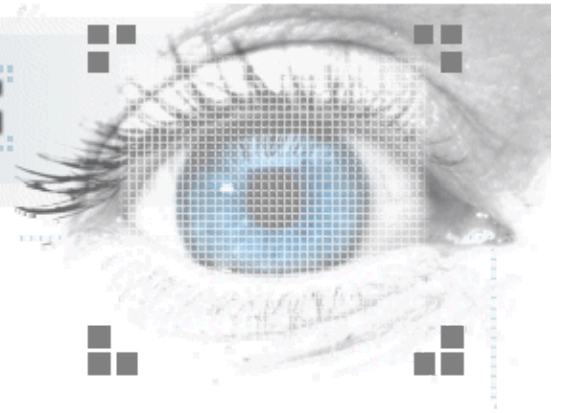


PIXELITA DESIGNS

Pixelita Designs WHITEPAPER Series



GUIDE TO TROUBLE-FREE WORDPRESS INSTALLATION AND UPGRADE

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A BRIEF HISTORY OF WORDPRESS

WordPress is a fork of the old B2/Cafelog blogging software and is the brainchild of Ryan Boren and Matt Mullenweg. It's been around since 2001, but gained immense popularity around the Spring of 2004 during the MovableType licensing debacle. The name *WordPress* was actually suggested by Big Pink Cookie blogger Christine Selleck Tremoulet, a friend of Matt's in Houston, Texas. Since that time, its popularity has increased exponentially so that it is now the top blogging software of choice for self-hosted blogs and for a blogging community at WordPress.com.

WordPress released the first themed version, 1.5, in early 2005, followed closely by its 2.0 branch on New Year's Eve 2005. To this day, other than the latest stable version of WordPress available at the download link at www.wordpress.org, **2.0.11** remains the only other stable version available and support for it is promised through 2010.

INSTALLATION

In order to successfully install WordPress, you'll need the following:

Server Requirements

APACHE/UNIX

- PHP 4.3 or greater
- MySQL 4.0 or greater
- The mod_rewrite Apache module

WINDOWS/IIS

- PHP 4.3.9
- Apache 1.3.33
- MySQL 4.0.22*

* Using this particular version of MySQL is very important to getting WordPress to run in a Windows environment as evidenced by this article:

http://codex.wordpress.org/FAQ_Installation#Can_I_install_WordPress_on_Windows_2000.3F

Other Information and Tools You'll Need

In order to successfully install WordPress, you'll need an FTP program and access to your web hosting account (cPanel, Plesk, etc.). We recommend the following FTP programs:

- WS-FTP (<http://www.ipswitch.com>)
- SmartFTP (<http://www.smartftp.com>)
- Cute FTP (<http://www.cuteftp.com>)
- Filezilla (<http://www.filezilla-project.org>)



Installing WordPress Using the Fantastico Installer

We discourage setting up WordPress – or any other application – using the Fantastico installer found in most cPanel accounts, or using the Dreamhost One-Click installer. Even though the installer might be using the latest version of the application or script, we find it to be more error-free in the long run to install via FTP. Not only that, you have no control over what the MySQL database is called and I find it easier to give my databases meaningful names, in case I should have to go in and edit them later.

Nevertheless, we've included these quick instructions for those of you wanting to take the easy way out.

1. Click on the Fantastico icon in your cpanel.
2. Locate WordPress in the list of applications to be installed.
3. Choose New Install. Fantastico will calculate the disk space required for the new installation.
4. If you want your new WordPress site to be in a **subdirectory**, specify the directory where indicated. If you want it in a new **subdomain**, be sure you set up the subdomain first. Then specify it where indicated. Otherwise, leave the box blank and Fantastico will set up WordPress in your site root. (If there is already another [INDEX.PHP](#) file there, you will get an error message and will need to remove the existing [INDEX.PHP](#) file before proceeding.)
5. Fill in your *Admin email*, *Site name* and *Description*. Make sure your email address is correct before proceeding, as this will be the admin contact for your WordPress install until you change it.
6. Fill in the *Email account username* and *Email account password* for the Blog by Email feature. (This is generally your domain-based email.) Leave the other boxes blank. Click "Finish" to complete the installation.
7. Fantastico will ask you if you want a copy of the installation details emailed to you. I always let it do so. Viola, you are done. You should make a note of the MySQL database name, since the Fantastico email does not include this critical bit of information when it emails you installation details.

Installing WordPress Via FTP

OBTAIN THE LATEST DOWNLOAD DISTRO

Go to <http://wordpress.org/download/> and download the latest WordPress version to your computer's hard drive.

SETTING UP A MYSQL DATABASE AND USER

1. Go to your web host's dashboard/cpanel and create a new MySQL database. Give it a meaningful name.

2. Set up a new databases user **OR** you can use an existing MySQL user as long as you know the user's password.
3. Make sure to associate the database user with the newly-created database.

PREPARING THE CONFIG FILE

In your favorite text editor (NOTE: Microsoft Word is NOT a text editor!), open [WP-CONFIG-SAMPLE.PHP](#) and rename it to [WP-CONFIG.PHP](#). See [Appendix A](#) for a sample [WP-CONFIG.PHP](#) file with notes in the Appendix. Use it as a guide to prepare your own [WP-CONFIG.PHP](#) file.

UPLOADING VIA FTP

1. Fire up your favorite FTP program and begin uploading the files from the distro.
2. If you want your WordPress site in your site's root, simply upload all the files and folders to your site's root.
3. If you want your WordPress site in a subfolder, then upload all the files and folders into that subfolder.
4. If you want your WordPress site in a subdomain, then upload all the files and folders into that subdomain's folder.

RUNNING THE INSTALLATION SCRIPT

Once the files have been uploaded, point your browser to the [/WP-ADMIN](#) folder and [INSTALL.PHP](#). For example, if your WordPress install is at [www.yourserver.com](#), you would go to: [http://www.yourserver.com/wp-admin/install.php](#).

WordPress should now be installed in the location you have specified and you are now free to go in and configure it to your liking!

Tips for a Hack-Free WordPress Installation

The key to access to a WordPress site for hackers is via (outdated or unsecure) plugins, outdated or unsecure WordPress versions or via MySQL. Take the following steps to ensure that you make it as difficult as possible for hackers to gain access to your site.

1. Use unconventional names for your databases and usernames. (This is one reason we recommend you NOT use the Fantastico installer, since the names it gives to databases are predictable to hackers.)
2. Do not use "Admin" as your admin login. Choose another difficult-to-guess name instead.
3. Use an unconventional database prefix for your MySQL database. (This is configured in your [WP-CONFIG.PHP](#) file.)

4. Lockdown your /plugins folder by placing a generic [INDEX.HTML](#) file there. This keeps curious snoops (like myself) and far more nefarious hackers from viewing your plugins to see what they might be able to exploit.
5. Always run the latest stable, **secure** version of WordPress.

UPGRADING WORDPRESS

The key to a successful WP upgrade is a healthy database. If the database is stable and has survived the upgrade, and you don't have any weird calls to obsolete tags in your templates, you are cleared for takeoff. Here are the steps you should follow to ensure that your database (which contains all your posts, pages, settings and comments, your WP site's heart and soul) survives intact.

Pre-Flight Checklist

- Backup your database! If you have the WP Backup plugin (<http://www.ilfilosofo.com/blog/wp-db-backup>), just use that to capture the latest MySQL dump. Otherwise, go through your web host's control panel and PHPAdmin to export the *.sql file to your hard drive.
- Backup any changed files such as your theme files, the [QUICKTAGS.JS](#) file if you've customized it, and I usually backup the [/PLUGINS](#) folder as well, just so it's handy and I don't have to hunt down all the plugins I've installed.
- Disable all your plugins. You can do this manually from within the WordPress dashboard or you can cheat like I do. Just rename your [/PLUGINS](#) folder. If WP cannot find the [/PLUGINS](#) folder, it thinks you don't have any installed. You can restore the folder's correct name after you've successfully upgraded.
- Chart your upgrade path. If you are upgrading from 2.0.11, you should upgrade incrementally, like this: 2.0.11 > 2.1 > 2.2 > 2.3 > 2.5 > 2.6 > 2.7, etc.
- Make sure you have downloaded and unzipped to folders all of the WP versions you'll need to complete your upgrade. You can find them in the download archive (<http://wordpress.org/download/release-archive/>).
- Using your favorite FTP program, upload WordPress, starting with 2.1, from the folder you downloaded and unzipped. **DO NOT UPLOAD** any [.HTACCESS](#) or [WP-CONFIG.PHP](#) files from any of the distros! **You will want to retain your own versions of [.HTACCESS](#) and [WP-CONFIG.PHP](#) already on your server.**

Performing the Upgrade

Once the first new version is uploaded, point your browser to the [/WP-ADMIN](#) folder and [UPGRADE.PHP](#). For example, if your WordPress install is at www.yourserver.com, you would go to: [HTTP://WWW.YOURSERVER.COM/WP-ADMIN/UPGRADE.PHP](http://www.yourserver.com/wp-admin/upgrade.php).

Proceed to upgrade the database when prompted.

Repeat steps 6, 7, and 8 above (uploading the incremental versions, invoking upgrade.php and updating the database) until you've upgraded all the way to the latest version of WordPress.

After you've upgraded to the latest version of WordPress, your WordPress database should be ready to go. Rename your /plugins folder if you cheated in the step above, or login to WordPress and activate your plugins, one by one, testing to make sure your WP site doesn't throw out any blank pages. If it does, you have a plugin that isn't ready for the latest WP version. Make a note of it, keep it deactivated (or delete it altogether) and make a note to find a replacement for it later.

If you get any kind of errors when working in the backend of WordPress, don't despair. I've saved the best for last. It's what happened to me. It's simply a matter of a server burp and a critical file (aren't all program files critical?) not being uploaded properly during the FTP process. Go back to your FTP program, and delete the following files/folders:

```
/WP-ADMIN  
/WP-INCLUDES  
ALL *.PHP FILES IN THE WP ROOT EXCEPT .HTACCESS, ROBOTS.TXT AND WP-CONFIG.PHP
```

Reupload the WP files from the latest version (except any `.HTACCESS` or `WP-CONFIG.PHP` files from the distro). Having deleted the original files, you are ensuring that you have uploaded the freshest versions, not depending on your FTP program to accurately overwrite them.

You should now be able to log into WP and any issues you had should have disappeared. If not, you may want to post in the WordPress Support Forum (<http://www.wordpress.org/support/>) to find an answer to your problem. Happy upgrading!

SHOULD I UPGRADE TO WORDPRESS 2.8?

Pixelita Designs is advising its clients *not* to upgrade to WordPress 2.8 just yet. As with any new version, especially one with so many new changes close to the bone, there will be many bugs to be squashed and many nits to be ironed out. The latest stable, secure version is 2.7.1 and that is as far as we are advising that you upgrade until further notice. However, like us, if you want to play around with the newest version, you should do so on a non-production site! ☺

If you have any questions about installation or upgrading of WordPress, please contact Joni Mueller at whitepapers@pixelita.com.

ABOUT THE AUTHOR

Joni Mueller is one half of Pixelita Designs. She has been designing web pages professionally since 2003 and has been designing and coding for WordPress since March 2004. Along with her web design partner, **Ivan Minic**, who is Pixelita Designs' graphic artist and SEO specialist, they create beautiful, accessible, validating web sites using WordPress, CMS Made Simple, Expression Engine, Textpattern, sNews and Pixelpost. Visit them on the web at <http://www.pixelita.com>.

APPENDIX A

SAMPLE WP-CONFIG.PHP FILE

```

<?php
/**
 * The base configurations of the WordPress.
 *
 * This file has the following configurations: MySQL settings, Table Prefix,
 * Secret Keys, WordPress Language, and ABSPATH. You can find more information by
 * visiting {@link http://codex.wordpress.org/Editing_wp-config.php Editing
 * wp-config.php} Codex page. You can get the MySQL settings from your web host.
 *
 * This file is used by the wp-config.php creation script during the
 * installation. You don't have to use the web site, you can just copy this file
 * to "wp-config.php" and fill in the values.
 *
 * @package WordPress
 */

// ** MySQL settings - You can get this info from your web host ** //
/** The name of the database for WordPress */
define('DB_NAME', 'your_db_name');

/** MySQL database username */
define('DB_USER', 'your_user_name');

/** MySQL database password */
define('DB_PASSWORD', 'your_db_pword');

/** MySQL hostname */
define('DB_HOST', 'localhost');

/** Database Charset to use in creating database tables. */
define('DB_CHARSET', 'utf8');

/** The Database Collate type. Don't change this if in doubt. */
define('DB_COLLATE', '');

/**#@+
 * Authentication Unique Keys.
 *
 * Change these to different unique phrases!
 * You can generate these using the {@link http://api.wordpress.org/secret-key/1.1/
WordPress.org secret-key service}
 *
 * @since 2.6.0
 */
define('AUTH_KEY', 'your_unique_key');
define('kivalovesreni', 'put your unique phrase here');
define('renifriend', 'put your unique phrase here');
define('friendreni', 'put your unique phrase here');
/**#@-*/

/**
 * WordPress Database Table prefix.
 *
 * You can have multiple installations in one database if you give each a unique
 * prefix. Only numbers, letters, and underscores please!
 */
$table_prefix = 'wp_';

/**

```

```
* WordPress Localized Language, defaults to English.
*
* Change this to localize WordPress.  A corresponding MO file for the chosen
* language must be installed to wp-content/languages. For example, install
* de.mo to wp-content/languages and set WPLANG to 'de' to enable German
* language support.
*/
define ('WPLANG', '');

/* That's all, stop editing! Happy blogging. */

/** WordPress absolute path to the Wordpress directory. */
if ( !defined('ABSPATH') )
    define('ABSPATH', dirname(__FILE__) . '/');

/** Sets up WordPress vars and included files. */
require_once(ABSPATH . 'wp-settings.php');
?>
```

APPENDIX B LIST OF HELPFUL WORDPRESS LINKS

Cherie Hayes' VLogger Plugin:

<http://www.village-idiot.org/archives/2008/04/16/postlogger-for-wordpress/>

WordPress Security Tips and Tricks

<http://www.noupe.com/how-tos/wordpress-security-tips-and-hacks.html>

Lorelle on WordPress Security

<http://lorelle.wordpress.com/2008/04/28/wordpress-security-prevention-reactions-and-scares/>

WordPress Security Whitepaper

<http://blogsecurity.net/wordpress/wordpress-security-whitepaper/>

Matt Mullenweg on Recent SQL Injection Hacks

<http://ma.tt/2008/04/securityfocus-sql-injection-bogus>

WTC's Ten Security Plugins for WordPress

<http://weblogtoolscollection.com/archives/2008/04/16/10-security-plugins-for-wp/>

Preventing SQL Injection Attacks

<http://www.codeproject.com/KB/database/SqlInjectionAttacks.aspx>

Running a Secure Apache Server

<http://www.w3.org/Security/Faq/wwwsf3.html>

PHP Shared Server Security

<http://forums.devshed.com/web-hosting-12/php-shared-server-security-8765.html>

Is Your WordPress Site Safe From Hackers?

<http://blog.pixelita.com/35/is-your-wordpress-site-safe-from-hackers/>

