

LOCAL ENVIRONMENT

WordCamp PHX 2013

301

<http://x.co/phx13301>

Download these slides
and follow along:

<http://x.co/phx13301>

LOCAL

(NO INTERNET)

Talk (fast!)

Server

Editor

Tools

Plugins

Tips

ENVIRONMENT

(WHERE WORDPRESS LIVES)

Demo

Install WordPress

WAMPServer

MAMP

Using xdebug

Questions?!

SERVER

Configuration

SSL

PHP Extensions

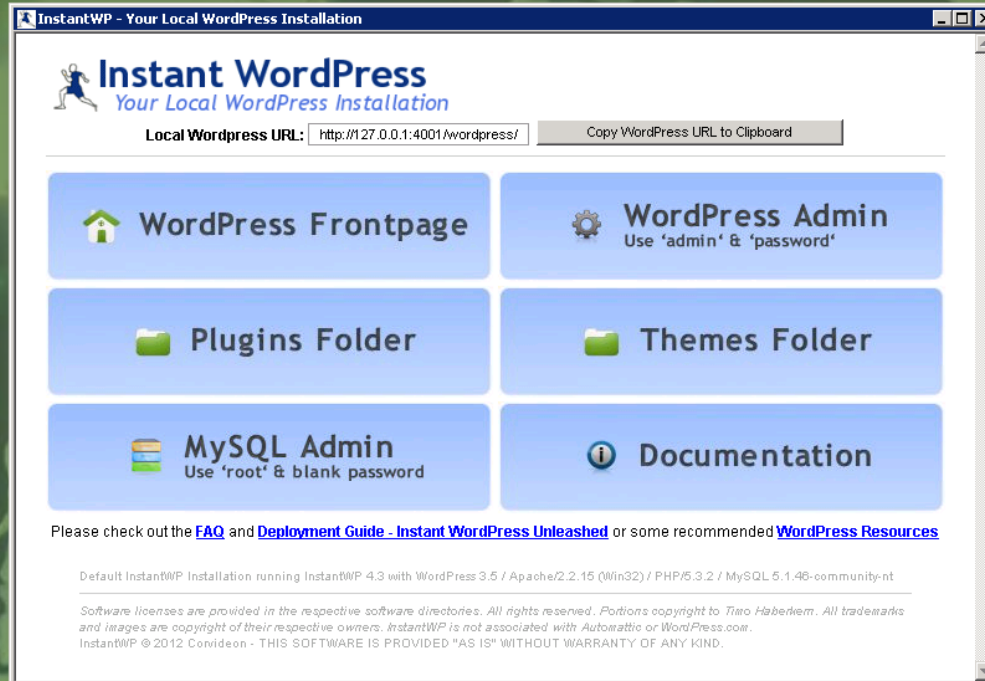
Additional Apps

Ease of use

Unique Features

Multisite capable?

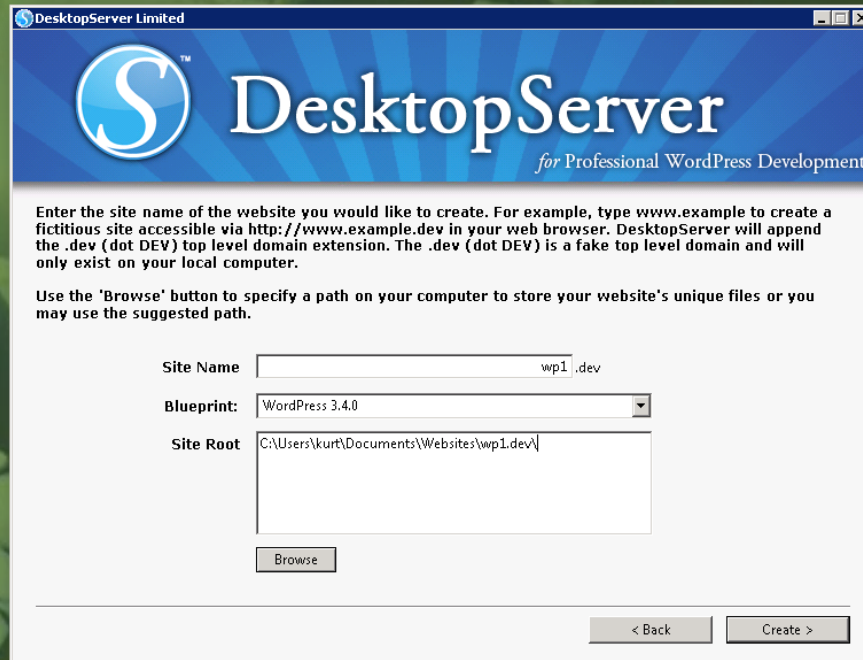
INSTANTWP



Doesn't use port 80
No multisite
Runs only one site at a time

<http://www.instantwp.com/>

DESKTOPSERVER



DesktopServer Limited

S DesktopServer
for Professional WordPress Development

Enter the site name of the website you would like to create. For example, type `www.example` to create a fictitious site accessible via `http://www.example.dev` in your web browser. DesktopServer will append the `.dev` (dot DEV) top level domain extension. The `.dev` (dot DEV) is a fake top level domain and will only exist on your local computer.

Use the 'Browse' button to specify a path on your computer to store your website's unique files or you may use the suggested path.

Site Name

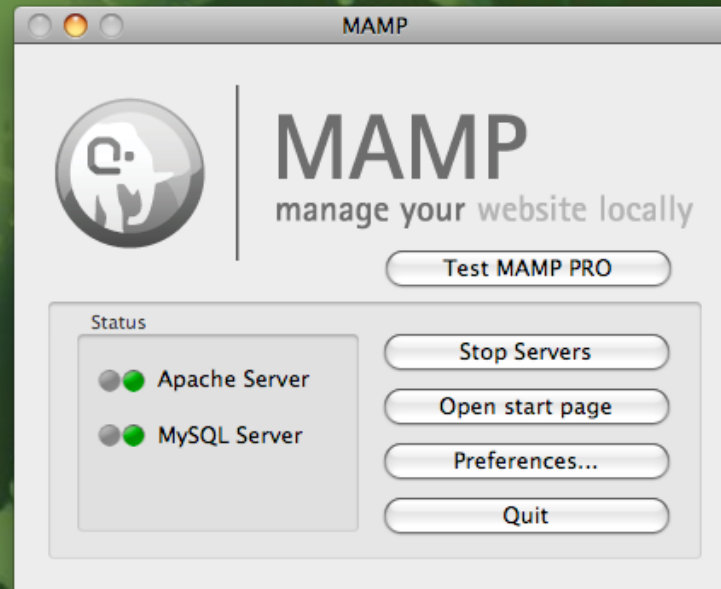
Blueprint:

Site Root

- Uses port 80
- No multisite (available via upgrade)
- Runs multiple dev sites
- Locked to ".dev" TLD
- Includes xdebug

<http://serverpress.com/downloads/>

MAMP



More than just WordPress

Multisite ... sure!

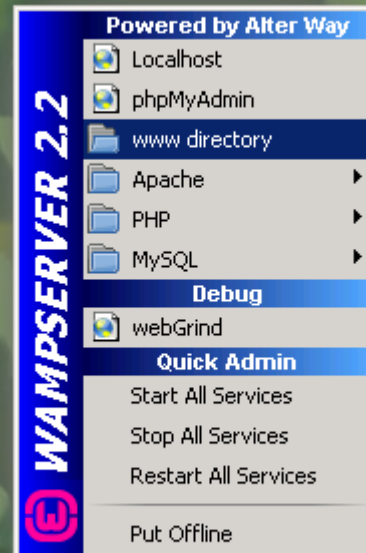
Mac OS X only

Feels like a normal app

Will prompt for your password (necessary for apache to use port 80)

<http://www.mamp.info/>

WAMP SERVER



More than just WordPress
Multisite ... sure!
Windows only
Easy to configure php / apache
Supports SSL (BYO vhost)

<http://www.wampserver.com/en/>

XAMPP

XAMPP Control Panel v3.1.0 3.1.0

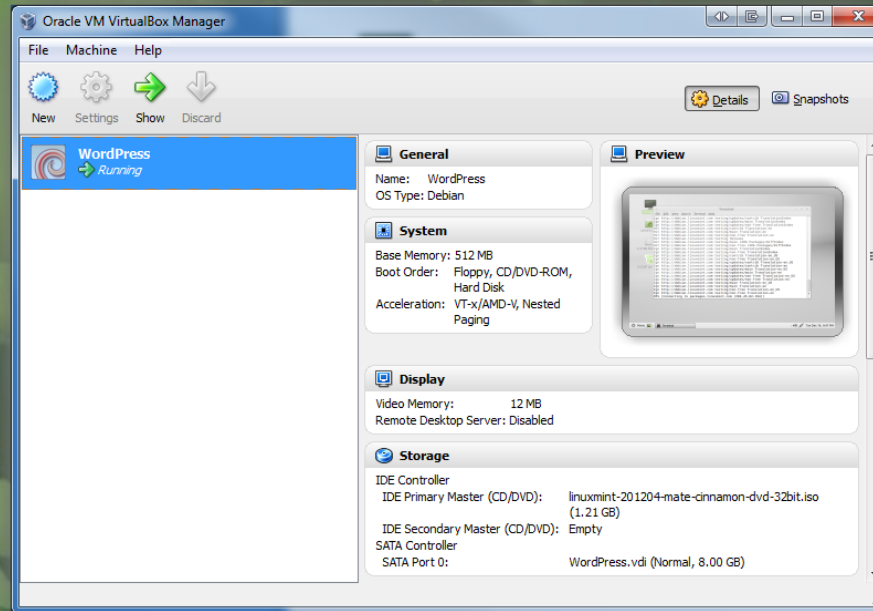
Service	Module	PID(s)	Port(s)	Actions
<input checked="" type="checkbox"/>	Apache	3112	80, 443	Stop Admin Config Logs
<input checked="" type="checkbox"/>	MySQL	4196	3306	Stop Admin Config Logs
<input checked="" type="checkbox"/>	FileZilla			Start Admin Config Logs
<input type="checkbox"/>	Mercury			Start Admin Config Logs
<input checked="" type="checkbox"/>	Tomcat			Start Admin Config Logs

3:40:20 PM [Apache] You need to uninstall/disable/reconfigure the blocking application or reconfigure Apache to listen on a different port
3:40:20 PM [Apache] Problem detected!
3:40:20 PM [Apache] Port 443 in use by "c:\xampplite\apache\bin\httpd.exe"
3:40:20 PM [Apache] Apache WILL NOT start without the configured ports free!
3:40:20 PM [Apache] You need to uninstall/disable/reconfigure the blocking application or reconfigure Apache to listen on a different port
3:40:20 PM [mysql] Problem detected!
3:40:20 PM [mysql] Port 3306 in use by "c:\xampplite\mysql\bin\mysqld.exe"
3:40:20 PM [mysql] MySQL WILL NOT start without the configured ports free!
3:40:20 PM [mysql] You need to uninstall/disable/reconfigure the blocking application or reconfigure MySQL to listen on a different port
3:40:20 PM [main] Starting Check-Timer
3:40:20 PM [main] Control Panel Ready

More than just WordPress
Multisite ... sure!
Linux, Windows, Mac
Lots of features
Can get complex
Supports SSL

<http://www.apachefriends.org/en/xampp.html>

VIRTUALBOX



Emulate any setup, even multiple servers
Take snapshots, rollback to previous configurations
Backup entire machines as single files
Extensible via vagrant and phpvirtualbox
No training wheels

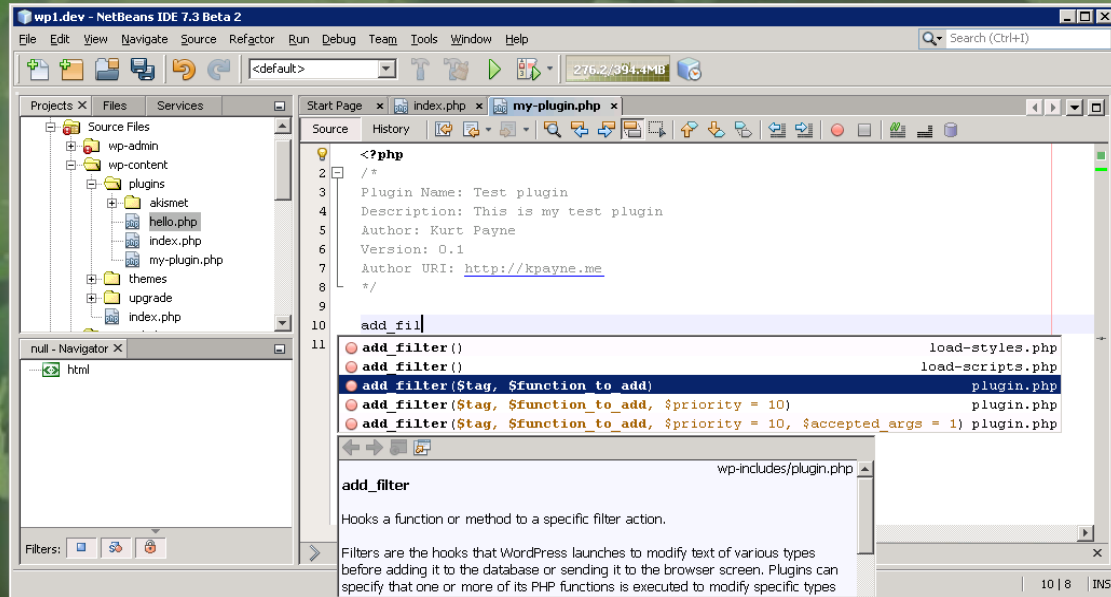
<https://www.virtualbox.org/>



EDITOR

Heavyweight or Featherweight?

NETBEANS



Other Options

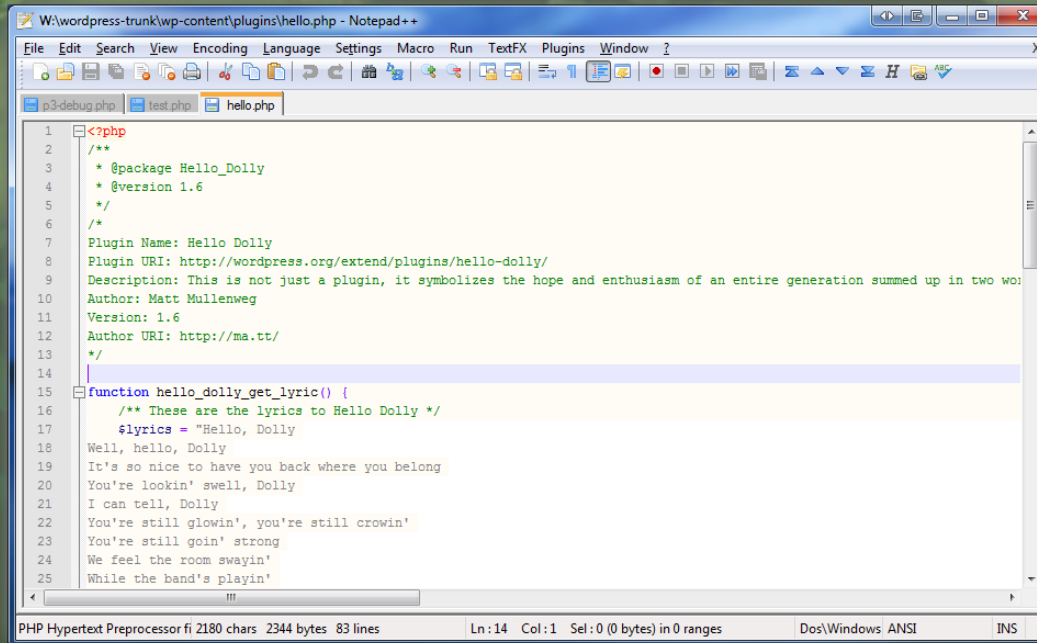
- PHPStorm
- Komodo IDE
- NuSphere IDE
- Zend Studio
- Aptana

Features

- Xdebug
- Code completion
- Project-wide search/replace
- Inline sanity checks
- Endless stream of features

<http://netbeans.org/>

NOTEPAD++



The screenshot shows the Notepad++ application window with the file 'hello.php' open. The code is a PHP plugin for WordPress, featuring a header with package information and a function 'hello_dolly_get_lyric()' that returns the lyrics of the song 'Hello Dolly'.

```
1 <?php
2 /**
3  * @package Hello_Dolly
4  * @version 1.6
5  */
6 /**
7  Plugin Name: Hello Dolly
8  Plugin URI: http://wordpress.org/extend/plugins/hello-dolly/
9  Description: This is not just a plugin, it symbolizes the hope and enthusiasm of an entire generation summed up in two wo
10 Author: Matt Mullenweg
11 Version: 1.6
12 Author URI: http://ma.tt/
13 */
14
15 function hello_dolly_get_lyric() {
16     /** These are the lyrics to Hello Dolly */
17     $lyrics = "Hello, Dolly
18 Well, hello, Dolly
19 It's so nice to have you back where you belong
20 You're lookin' swell, Dolly
21 I can tell, Dolly
22 You're still glowin', you're still crowin'
23 You're still goin' strong
24 We feel the room swayin'
25 While the band's playin'

```

Other Options

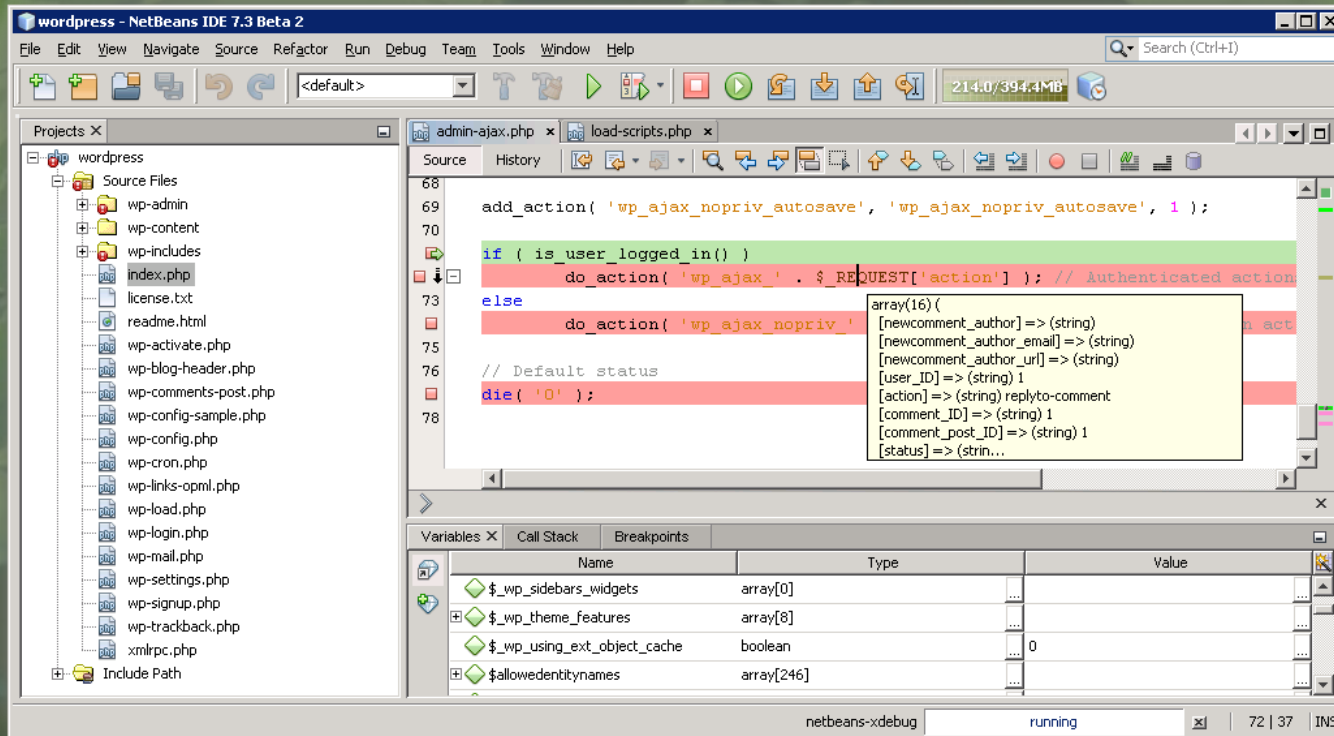
- TextPad
- Komodo Editor
- TextMate
- vim

Features

- Leaner
- Syntax highlighting
- Can edit larger / single files
- Can edit different file (e.g. python)

<http://notepad-plus-plus.org/>

XDEBUG



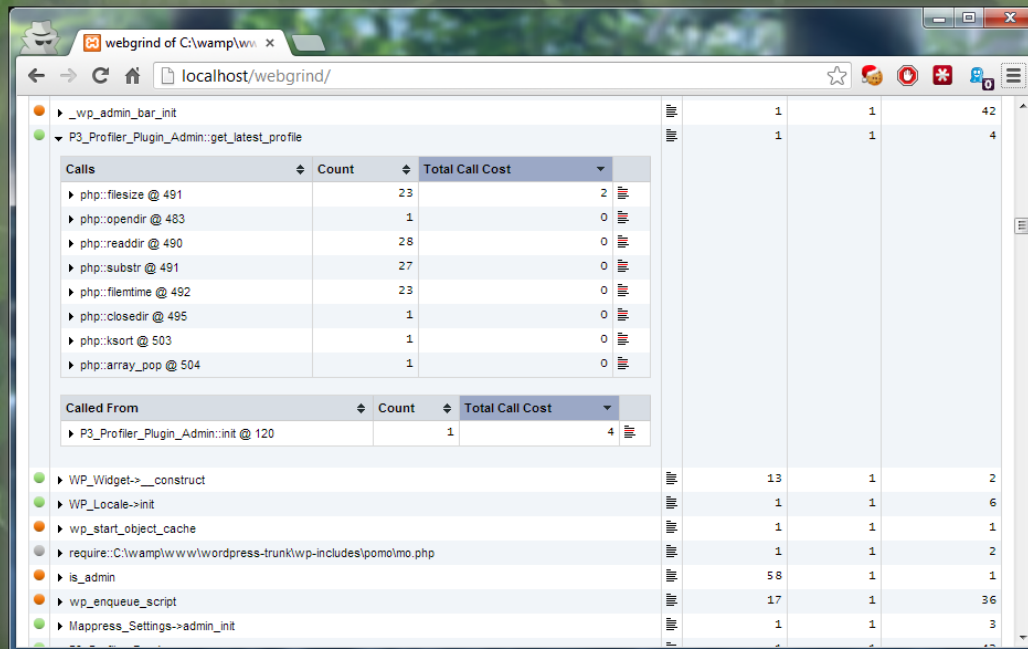
Debugging

See / edit variables
See full call stack
Pause execution

Analysis

Function trace
Memory delta
Cachegrind

WEBGRIND



The screenshot shows the webgrind application interface. The browser address bar displays 'localhost/webgrind/'. The main content area is divided into several sections:

- Calls:** A table listing various PHP functions with their counts and total call costs.
- Called From:** A table listing the source of the calls.
- Call Stack:** A list of function calls with their counts and total call costs.

Function	Count	Total Call Cost
php::filesize @ 491	23	2
php::opendir @ 483	1	0
php::readdir @ 490	28	0
php::substr @ 491	27	0
php::filemtime @ 492	23	0
php::closedir @ 495	1	0
php::ksort @ 503	1	0
php::array_pop @ 504	1	0

Function	Count	Total Call Cost
P3_Profiler_Plugin_Admin::int @ 120	1	4

Function	Count	Total Call Cost
WP_Widget->__construct	13	2
WP_Locale->int	1	6
wp_start_object_cache	1	1
require::C:\wamp\www\wordpress-trunk\wp-includes\pomo\mo.php	1	2
is_admin	58	1
wp_enqueue_script	17	36
Mapress_Settings->admin_int	1	3

Debugging

See full call stack

See relative or absolute timing

See incl. vs. excl. timing

Advanced

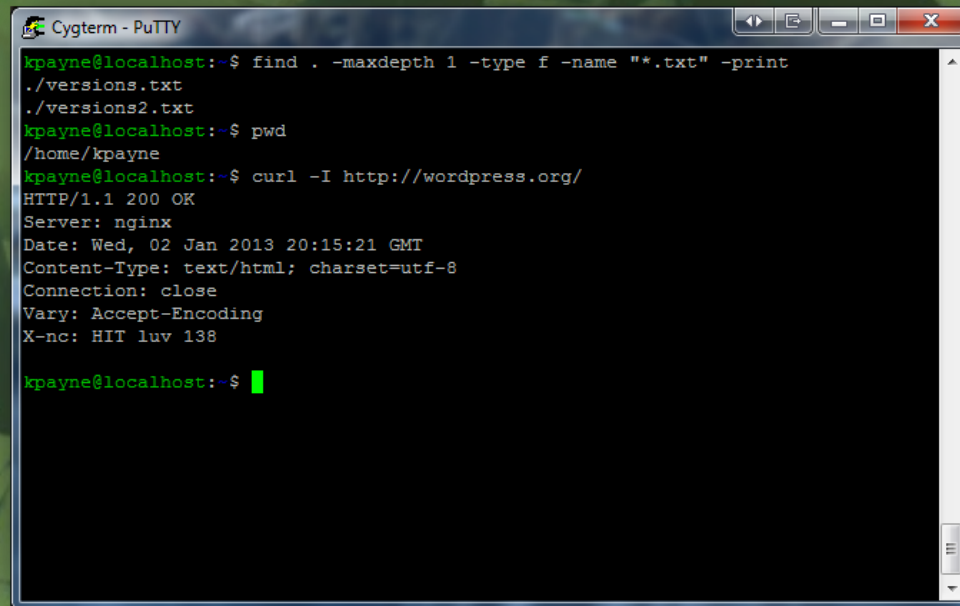
KCacheGrind / QCacheGrind

WinCacheGrind

XHProf / XHGui

<https://github.com/jokkedk/webgrind>

CYGWIN



```
Cyterm - PuTTY
kpayne@localhost:~$ find . -maxdepth 1 -type f -name "*.txt" -print
./versions.txt
./versions2.txt
kpayne@localhost:~$ pwd
/home/kpayne
kpayne@localhost:~$ curl -I http://wordpress.org/
HTTP/1.1 200 OK
Server: nginx
Date: Wed, 02 Jan 2013 20:15:21 GMT
Content-Type: text/html; charset=utf-8
Connection: close
Vary: Accept-Encoding
X-nc: HIT luv 138
kpayne@localhost:~$
```

Unix goodness

Install grep, find, bash in Windows

PEAR paths can get confused

Better shell: mintty, puttycyg, rxvt, or putty + cygtermd

<http://www.cygwin.com/>

IEVMS

(screenshot missing ... you've
seen IE before, right?)

Testing in IE 6-9

Run Windows in a Virtual machine

Expires after 90 days

<https://github.com/xdissent/ievms>

Git

- Local repositories don't require an internet connection
- Learning curve is steep
- Github is free (or pay for private repositories)

Subversion

- Remote repositories require connection
- Easier to learn, but less flexible
- Google code is free

Mercurial

- ???

Choose what works

Also ...

<http://danielbachhuber.com/2012/09/30/git-in-my-subversion/>

The screenshot shows a web browser window with the address bar at 'mydevbox.local #1'. The page title is 'Test Blog'. The browser's developer console is open, showing the 'Console' tab. The console displays a SQL query and its output. The query is: `1 SELECT * FROM wp_options WHERE option_name LIKE "p3%";`. The output is a table with three columns: `option_id`, `option_name`, and `option_value`. The output contains three rows of data.

option_id	option_name	option_value
313	p3-profiler_debug_log	a:0:{}
314	p3-profiler_options	a:6: {s:17:"profiling_enabled";b:0;
311	p3-profiler_version	1.3.0

Debug Bar Plugins

See warnings messages

See SQL queries

See transients (Debug Bar Transients)

See timing / profiling info (Debug Bar Extender)

<http://wordpress.org/extend/plugins/debug-bar/>

<http://wordpress.org/extend/plugins/search.php?q=debug+bar>

WordPress Reset

Make your site pristine again

<http://wordpress.org/extend/plugins/wordpress-reset/>

Configure SMTP

Send email via gmail (or other SMTP)

<http://wordpress.org/extend/plugins/configure-smtp/>

Core Control

Spy on http requests

Control crons, updates, file system methods

<http://wordpress.org/extend/plugins/core-control/>

WP-CONFIG.PHP

```
define('WP_DEBUG', true);  
define('WP_DEBUG_LOG', true);  
define('SCRIPT_DEBUG', true);  
define('CONCATENATE_SCRIPTS', false);  
define('SAVEQUERIES', true);
```

http://codex.wordpress.org/Editing_wp-config.php

Deploying to prod is tricky.

PHP Files - no problem

Static content - doesn't WP pick those names?

Sync database, too

Don't sync this

Keep everything on a CDN

Database - isn't your URL all over the DB?

Search / replace with serialized PHP is bad

<https://github.com/interconnectit/Search-Replace-DB>

Ramp

<http://crowdfavorite.com/wordpress/ramp/>

Migrate Content Plugin

<http://www.youtube.com/watch?v=uAlyhAMonh4>

Scott Taylor elaborates

<http://scotty-t.com/2012/01/18/wordpress-in-dev-qa-and-prod/>



BACKUP.

TWICE.

PRACTICE RECOVERY.



DEMO.

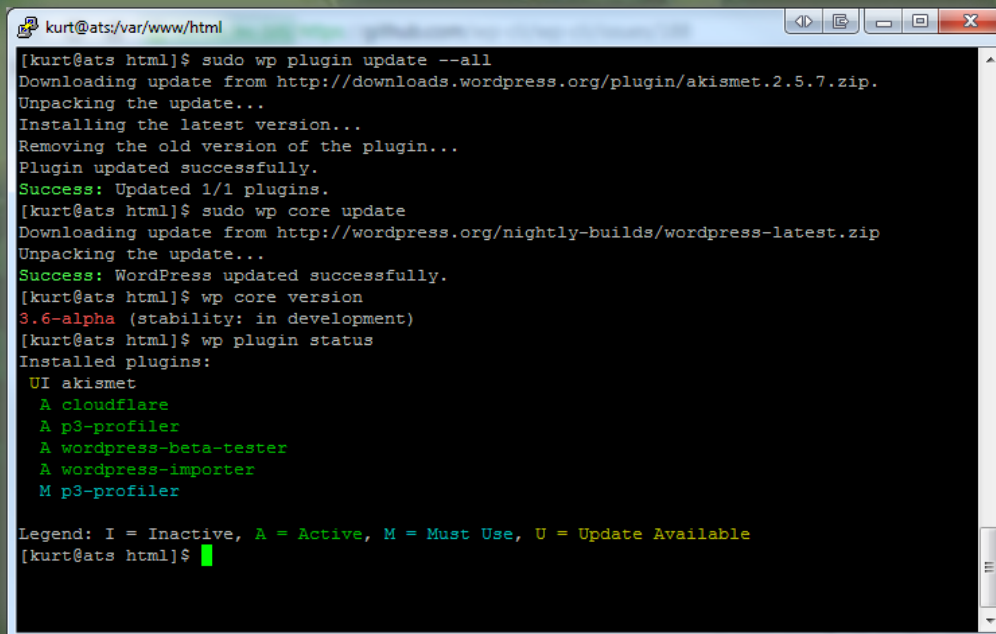


QUESTIONS?

IMAGE CREDITS

<http://www.flickr.com/photos/keithbsmiley/2678244535/sizes//>
[http://www.flickr.com/photos/sarahreido/5162576557/sizes//in/p
hotostream/](http://www.flickr.com/photos/sarahreido/5162576557/sizes//in/p
hotostream/)

WP-CLI



```
kurt@ats:var/www/html
[kurt@ats html]$ sudo wp plugin update --all
Downloading update from http://downloads.wordpress.org/plugin/akismet.2.5.7.zip.
Unpacking the update...
Installing the latest version...
Removing the old version of the plugin...
Plugin updated successfully.
Success: Updated 1/1 plugins.
[kurt@ats html]$ sudo wp core update
Downloading update from http://wordpress.org/nightly-builds/wordpress-latest.zip
Unpacking the update...
Success: WordPress updated successfully.
[kurt@ats html]$ wp core version
3.6-alpha (stability: in development)
[kurt@ats html]$ wp plugin status
Installed plugins:
UI akismet
A cloudflare
A p3-profiler
A wordpress-beta-tester
A wordpress-importer
M p3-profiler

Legend: I = Inactive, A = Active, M = Must Use, U = Update Available
[kurt@ats html]$
```

Scripting

- Lots of commands
- Helps you automate
- Your plugin can hook into wp-cli

<http://wp-cli.org/>