

CNT 4714: Enterprise Computing Fall 2013

Installing and Configuring Apache and PHP

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Introduction to PHP

- PHP is officially known as PHP: Hypertext Preprocessor and is very rapidly becoming the most popular server-side scripting language for creating dynamic web pages.
- PHP was created in 1994 by Rasmus Lerdorf (who currently works for Linuxcare, Inc. as a senior open-source researcher) to track users at his Web site. Lerdorf originally called it Personal Home Page Tools in a package he released in 1995. It eventually became an Apache Software Foundation project.
- PHP2 featured built-in database support and form handling. In 1997, PHP3 was released and featured a new parser which substantially increased performance and led to an explosion in PHP use.



Introduction to PHP (cont.)

- PHP4 featured the Zend Engine and was considerably faster and more powerful than its predecessors and further enhanced the popularity of PHP.
- The current release is PHP 5.5.5. It was declared stable on October 16, 2013 and features the Zend Engine 2, which provides further increases in speed and functionality. You can download the latest version of PHP at www.php.net. For more details on the Zend Engine 2 see www.zend.com.
- Today more than 240 million web sites and more than 2.1 million web servers utilize PHP technology.



Introduction to PHP (cont.)

- The power of the Web resides not only in serving content to users, but also in responding to requests from users and generating Web pages with dynamic content.
- Interactivity between the user and the server has become a crucial part of Web functionality. While other languages can also perform these functions, PHP was written specifically for interacting with the Web.
- PHP code is embedded directly into HTML documents. This allows the document author to write HTML in a clear, concise manner, without having to use multiple `print` statements, as is necessary with other CGI-based languages.



Introduction to PHP (cont.)

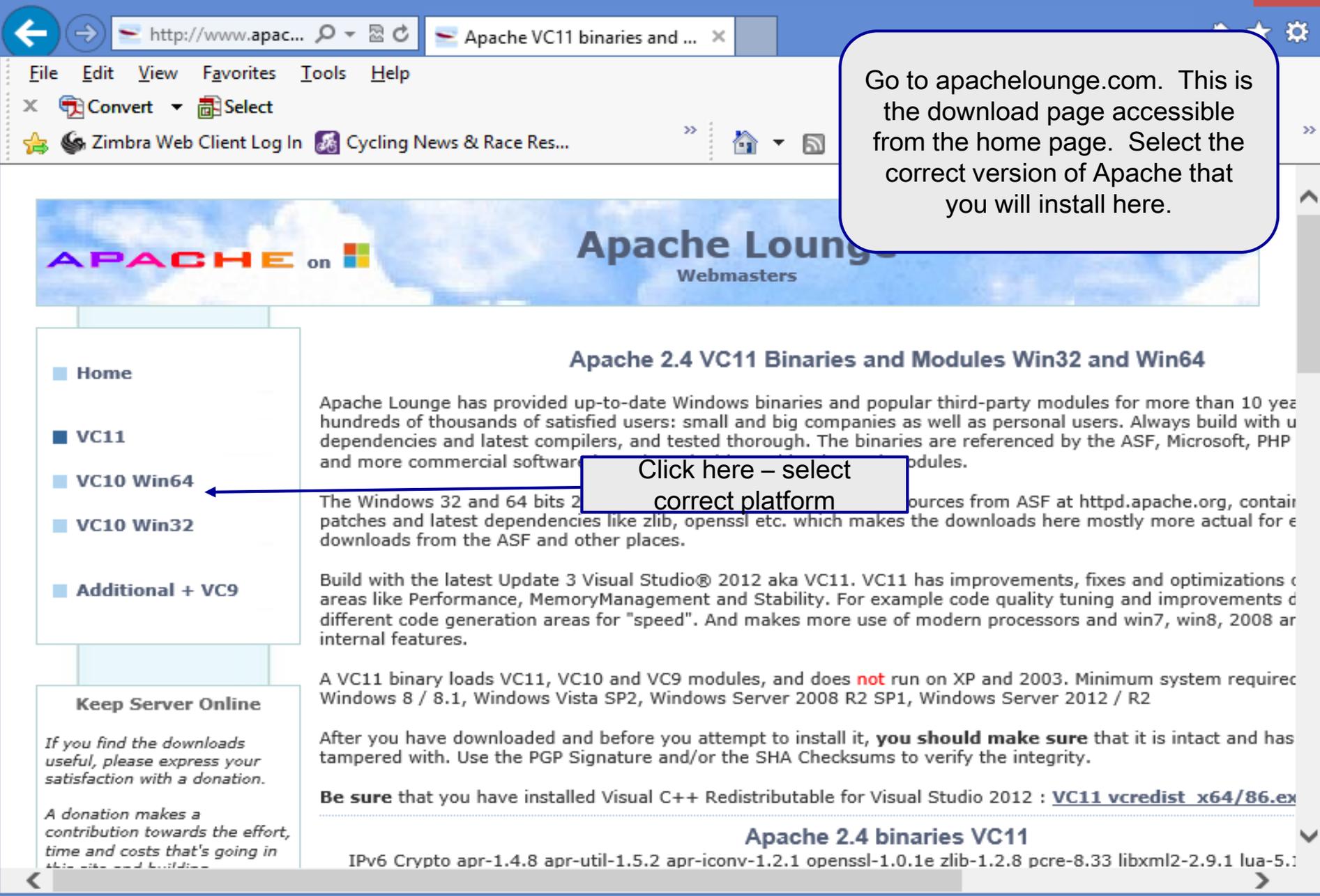
- PHP script file names usually end with `.php`, although a server can be configured to handle other file extensions.
- To run a PHP script, PHP must first be installed on your system.
- Although PHP can be used from the command line, a Web server is required to take full advantage of the scripting language. We will utilize the Apache HTTP Server available from www.apachelounge.com. (Note: this is not the same web site where you downloaded the Tomcat server you've already used.) The version we want is 2.4.6V10 which is not available directly from Apache. Apache's versions of the HTTP server utilize an older legacy version (VC6) of the Microsoft Visual C++ Studio compiler and are not compatible with current versions of PHP.
- Although there are several different packages that bundle PHP with MySQL and various HTTP servers, as IT majors you need to experience the set-up and integration of this type of software, so I will show you how to setup the Apache HTTP Server and integrate both PHP and MySQL into it.



Installing Apache HTTP Server

- The version of the Apache HTTP server that we will use is 2.4.6V10 (a V11 version is also now available and should also work fine, but I personally have not used this version yet) and it is available for download from www.apachelounge.com.
- There are several steps to go through in getting this server installed and configured to interpret PHP scripts. The remainder of these notes step you through this process.
- Note that I am doing the install on a 64-bit Windows machine running Windows 8. If you are installing on a different platform be sure to get the correct versions of all of the necessary files and check for compatibility.





Go to apachelounge.com. This is the download page accessible from the home page. Select the correct version of Apache that you will install here.

Click here - select correct platform

- Home
- VC11
- VC10 Win64
- VC10 Win32
- Additional + VC9

Apache 2.4 VC11 Binaries and Modules Win32 and Win64

Apache Lounge has provided up-to-date Windows binaries and popular third-party modules for more than 10 years to hundreds of thousands of satisfied users: small and big companies as well as personal users. Always build with up-to-date dependencies and latest compilers, and tested thorough. The binaries are referenced by the ASF, Microsoft, PHP and more commercial software developers.

The Windows 32 and 64 bits 2... sources from ASF at <http://httpd.apache.org>, contain patches and latest dependencies like zlib, openssl etc. which makes the downloads here mostly more actual for e... downloads from the ASF and other places.

Build with the latest Update 3 Visual Studio® 2012 aka VC11. VC11 has improvements, fixes and optimizations in areas like Performance, Memory Management and Stability. For example code quality tuning and improvements in different code generation areas for "speed". And makes more use of modern processors and win7, win8, 2008 and other internal features.

A VC11 binary loads VC11, VC10 and VC9 modules, and does **not** run on XP and 2003. Minimum system required Windows 8 / 8.1, Windows Vista SP2, Windows Server 2008 R2 SP1, Windows Server 2012 / R2

After you have downloaded and before you attempt to install it, **you should make sure** that it is intact and has not been tampered with. Use the PGP Signature and/or the SHA Checksums to verify the integrity.

Be sure that you have installed Visual C++ Redistributable for Visual Studio 2012 : [VC11 vcredist_x64/86.exe](#)

Apache 2.4 binaries VC11

IPv6 Crypto apr-1.4.8 apr-util-1.5.2 apr-iconv-1.2.1 openssl-1.0.1e zlib-1.2.8 pcre-8.33 libxml2-2.9.1 lua-5.1



Additional + VC9

Keep Server Online

If you find the downloads useful, please express your satisfaction with a donation.

A donation makes a contribution towards the effort, time and costs that's going in this site and building.

Thank You! Steffen

Donate

Contact:
Mail address is at the top of the paypal form.

Apache Lounge is not sponsored by anyone.

Your donations will help to keep this site alive and well, and continuing the building of the binaries.

then downloads from the ASF and other places.

Build with the latest Windows® Platform SDK 7.1 and Visual Studio C++ 2010 SP1 aka VC10. VC10 has improve optimizations over VC9 in areas like Performance, MemoryManagement and Stability. For example code quality to improvements done across different code generation areas for "speed". And makes more use of modern process 2008 internal features. Note: a VC10 binary loads VC9, VC10 and VC11 modules.

After you have downloaded and before you attempt to install it, **you should make sure** that it is intact and has tampered with. Use the PGP Signature and/or the SHA Checksums to verify the integrity.

Be sure that you have installed the Visual C++ 2010 [VC10 SP1 vcredist_x64](#)

Download this file

Apache 2.4 win64 binary

Apache 2.4.6
IPv6 Crypto apr-1.4.8 apr-util-1.5.2 apr-iconv-1.2.1 openssl-1.0.1e zlib-1.2.8 pcre-8.33 libxml2-2.9.1 lua-5.1.5

[httpd-2.4.6-win64.zip](#) [info & changelog](#) 16 Jul '13 12.206K

[PGP Signature \(Public PGP key\)](#), [SHA1-SHA512 Checksums](#)

Latest version OS: Windows 7/XP/Vista License: Free

Download Now

This advertise you to our we can download

Apache 2.4 win64 modules

Modules below are build with VC10 and loads when Apache 2.4 Win64 is build with x64 VC9, VC10 or VC11. It wi Apache 2.0 and 2.2 releases. Check in the ReadMe in the .zip if you have installed the **correct** VC Redistributable signatures and SHA checksums to verify the contents of the files.



15 July 2013

Apache Lounge Distribution

Apache 2.4.6 win64 VC11 update3

IPv6 and Crypto enabled, apr-1.4.8 apr-util-1.5.2 apr-iconv-1.2.1 openssl-1.0.1e zlib-1.2.8 pcre-8.33
libxml2-2.9.1 lua-5.1.5 expat-2.1.0

Original Home: httpd.apache.org
Win64 binary by: Steffen
Mail: info@apachelounge.com
Home: www.apachelounge.com

Build with Visual Studio® 2012 Update 3 (VC11) x64

- Be sure you have installed the Visual C++ Redistributable for Visual Studio 2012 Update 3.
Download and install, if you not have it already, from:

<http://www.microsoft.com/en-us/download/details.aspx?id=30679>

Loads 2.4 Win64 modules VC9 or VC10.

Minimum system required

Windows 7 SP1
Windows 8 / 8.1
Windows Server 2008 R2 SP1
Windows Server 2012 / R2
Windows Vista SP2

Note that this is the README file from the Apache2.4.6VC11 version. The same holds true for the Apache2.4.6V10 version in that you need to install this Visual Studio update before going any further.

Use this link to download and install the latest Visual C++ Update



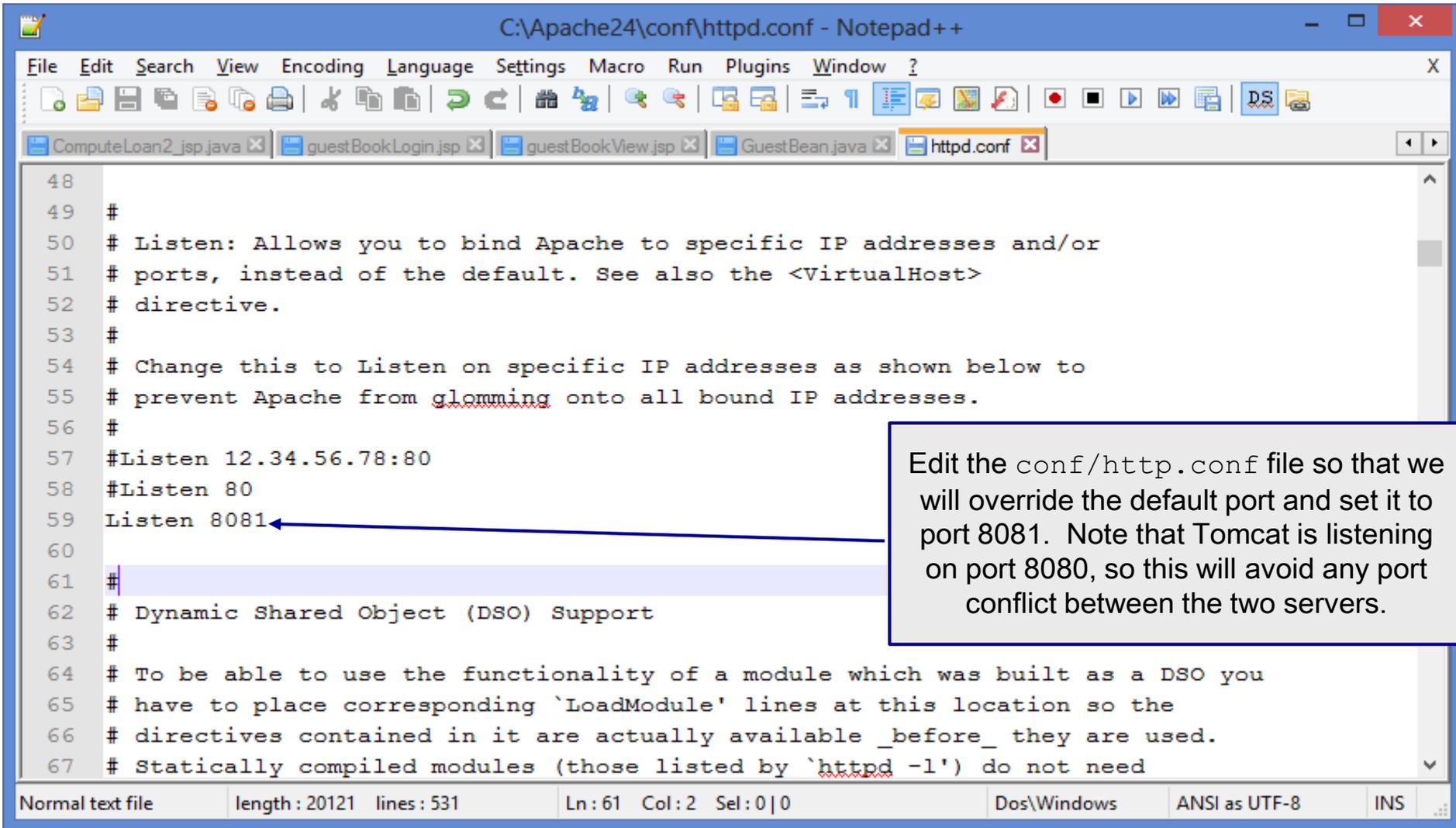
Screen shot showing the Apache directory. Note that the Apache install directory should be C:/Apache24.

Next (see next page) you need to edit the `conf/http.conf` file which is located in the `conf` directory.

Name	Date modified	Type	Size
bin	11/5/2013 4:34 PM	File folder	
cgi-bin	11/5/2013 4:34 PM	File folder	
conf	11/5/2013 4:34 PM	File folder	
error	11/5/2013 4:34 PM	File folder	
htdocs	11/5/2013 5:46 PM	File folder	
icons	11/5/2013 4:34 PM	File folder	
include	11/5/2013 4:34 PM	File folder	
lib	11/5/2013 4:34 PM	File folder	
logs	11/5/2013 5:39 PM	File folder	
manual	11/5/2013 4:34 PM	File folder	
modules	11/5/2013 4:34 PM	File folder	
ABOUT_APACHE	11/5/2013 4:34 PM	Text Document	14 KB
CHANGES	11/5/2013 4:34 PM	Text Document	139 KB
INSTALL	11/5/2013 4:34 PM	Text Document	6 KB
LICENSE	11/5/2013 4:34 PM	Text Document	38 KB
NOTICE	11/5/2013 4:34 PM	Text Document	2 KB
OPENSSE-NEWS	11/5/2013 4:34 PM	Text Document	29 KB
OPENSSE-README	11/5/2013 4:34 PM	Text Document	11 KB
README	11/5/2013 4:34 PM	Text Document	6 KB



Installing And Configuring Apache (cont.)

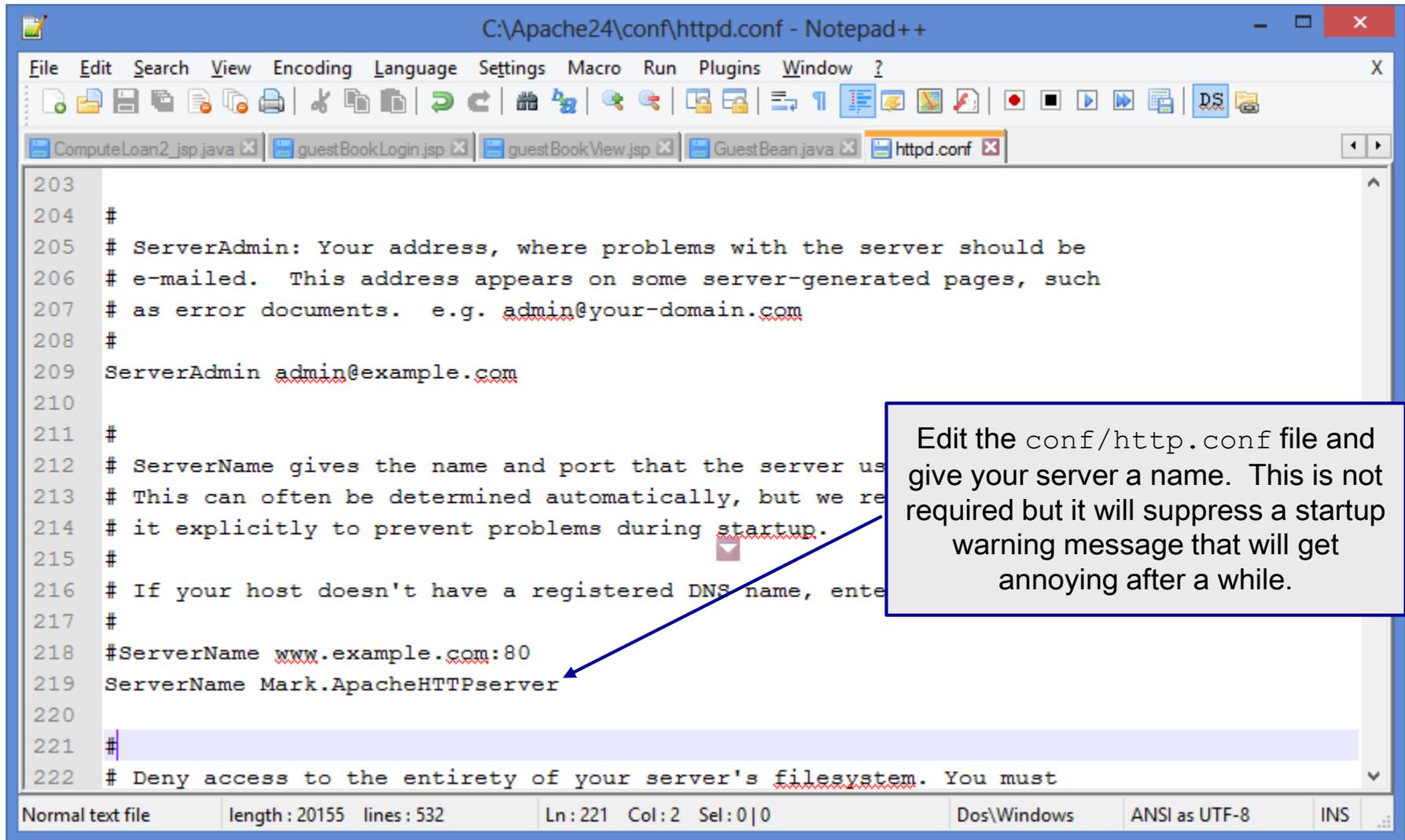
A screenshot of a Notepad++ window titled 'C:\Apache24\conf\httpd.conf - Notepad++'. The window shows the configuration file 'httpd.conf' with several lines of code. Line 59 is highlighted in blue, and a blue arrow points from a text box on the right to this line. The status bar at the bottom indicates 'Normal text file', 'length: 20121 lines: 531', 'Ln: 61 Col: 2 Sel: 0|0', 'Dos\Windows', 'ANSI as UTF-8', and 'INS'.

```
48
49 #
50 # Listen: Allows you to bind Apache to specific IP addresses and/or
51 # ports, instead of the default. See also the <VirtualHost>
52 # directive.
53 #
54 # Change this to Listen on specific IP addresses as shown below to
55 # prevent Apache from glomming onto all bound IP addresses.
56 #
57 #Listen 12.34.56.78:80
58 #Listen 80
59 Listen 8081
60
61 #
62 # Dynamic Shared Object (DSO) Support
63 #
64 # To be able to use the functionality of a module which was built as a DSO you
65 # have to place corresponding 'LoadModule' lines at this location so the
66 # directives contained in it are actually available before they are used.
67 # Statically compiled modules (those listed by 'httpd -l') do not need
```

Edit the conf/http.conf file so that we will override the default port and set it to port 8081. Note that Tomcat is listening on port 8080, so this will avoid any port conflict between the two servers.



Installing And Configuring Apache (cont.)

A screenshot of a Notepad++ window titled 'C:\Apache24\conf\httpd.conf - Notepad++'. The window shows the configuration file 'httpd.conf' with several lines of text. The text includes comments and configuration directives. A blue callout box with a blue arrow pointing to line 219 contains the text: 'Edit the conf/http.conf file and give your server a name. This is not required but it will suppress a startup warning message that will get annoying after a while.' The status bar at the bottom of the window shows 'Normal text file', 'length: 20155 lines: 532', 'Ln: 221 Col: 2 Sel: 0|0', 'Dos\Windows', 'ANSI as UTF-8', and 'INS'.

```
203
204 #
205 # ServerAdmin: Your address, where problems with the server should be
206 # e-mailed.  This address appears on some server-generated pages, such
207 # as error documents.  e.g. admin@your-domain.com
208 #
209 ServerAdmin admin@example.com
210
211 #
212 # ServerName gives the name and port that the server uses to identify
213 # This can often be determined automatically, but we recommend you
214 # set it explicitly to prevent problems during startup.
215 #
216 # If your host doesn't have a registered DNS name, enter its IP address
217 # here.  Set it to "localhost" if your host is a local machine without
218 # DNS, or your local IP address if you are unable to contact a DNS
219 #ServerName www.example.com:80
220 ServerName Mark.ApacheHTTPserver
221 #
222 # Deny access to the entirety of your server's filesystem.  You must
```



```
Command Prompt - httpd.exe
Microsoft Windows [Version 6.2.9200]
(c) 2012 Microsoft Corporation. All rights reserved.

C:\Users\Mark Llewellyn>cd..

C:\Users>cd..

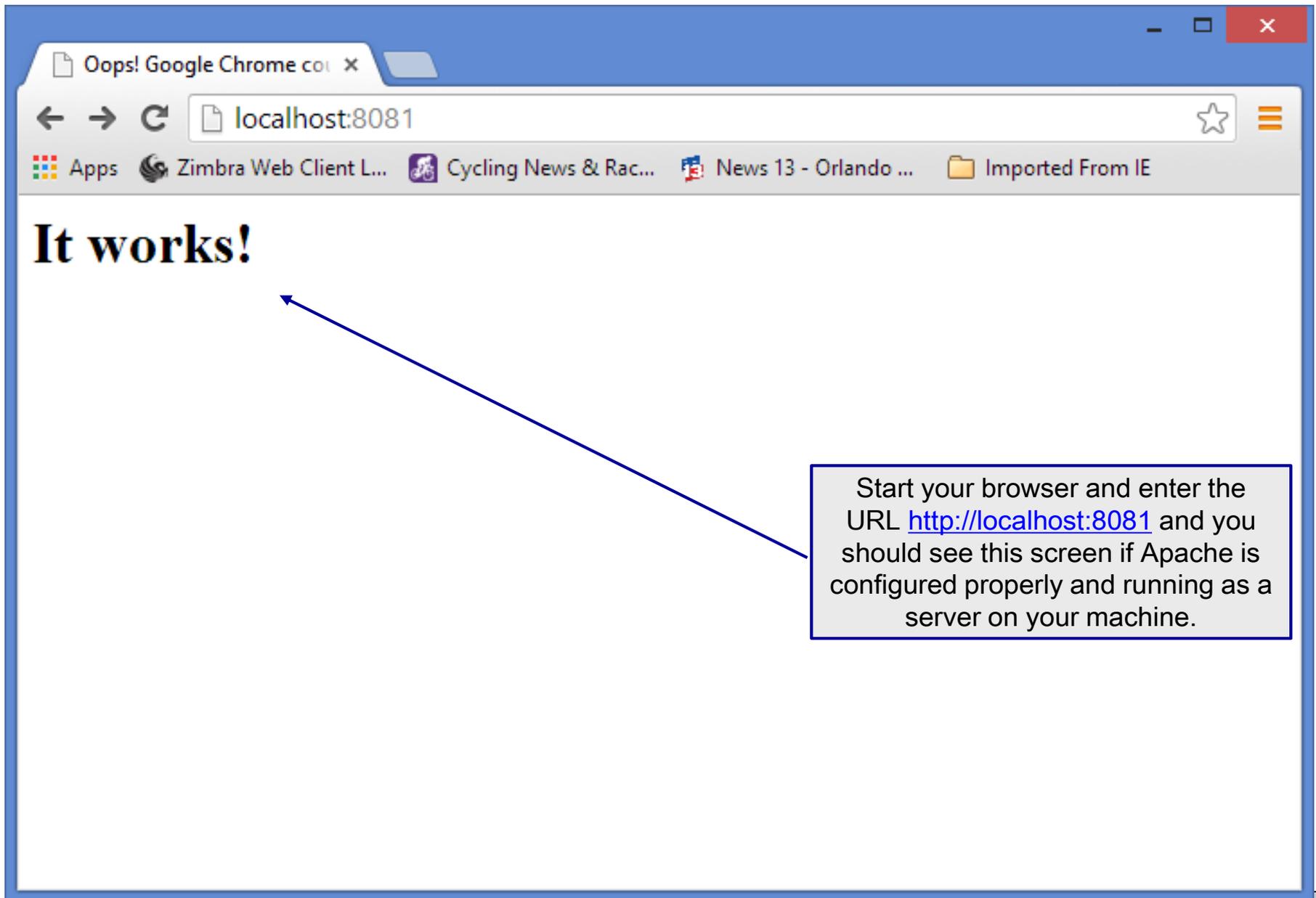
C:\>cd apache24

C:\Apache24>cd bin

C:\Apache24\bin>httpd.exe
```

From a command prompt – switch to the Apache24/bin directory and enter the command httpd.exe to start the Apache server running.





Start your browser and enter the URL <http://localhost:8081> and you should see this screen if Apache is configured properly and running as a server on your machine.



Installing and Configuring PHP

- The current stable version of PHP (PHP 5.5.5 can be downloaded from www.php.net).
- Note that since we are using Apache 2.4.6V10 HTTP Server that we will need to be sure and install the correct version of PHP which will be 5.5.5, older versions of PHP will not work properly with the newer versions of Apache. There is a way to make Apache work with older PHP scripts, but for now, we are not interested in having our server exhibit this capability.
- Newer versions of PHP are built using VC9 or VC11 (Visual Studio 2008 or 2012 versions).
- Click on the downloads link at the top of the PHP home page and select the proper format for your machine. (See next page.)
- Then download PHP to your machine and install it using the instructions beginning on page 17.



PHP Home page

Browser window showing the PHP Home page. The address bar displays <http://php.net/>. The browser title is "PHP: Hypertext Preprocessor". The menu bar includes File, Edit, View, Favorites, Tools, and Help. The address bar shows several tabs: "Convert", "Select", "Zimbra Web Client Log In", "Cycling News & Race Res...", and "News 13 - Orlando News, ...".

dismiss Step into the future! Click here to switch to the beta php.net site

Navigation bar with the PHP logo on the left. A search bar contains the text "search for" and "in the function list". Navigation links include: [downloads](#), [documentation](#), [faq](#), [getting help](#), [mailing lists](#), [licenses](#), [wiki](#), [reporting bugs](#), [php.net sites](#), [conferences](#), and [my php.net](#).

What is PHP?

PHP is a widely-used general-purpose scripting language that is especially suited for Web development and can be embedded into HTML. If you are new to PHP and want to get some idea of how it works, try the [introductory tutorial](#). After that, check out the online [manual](#).

Ever wondered how popular PHP is? See the [Netcraft Survey](#).

- ### Thanks To
- [easyDNS](#)
 - [Directi](#)
 - [pair Networks](#)
 - [Server Central](#)
 - [Hosted Solutions](#)
 - [Spry VPS Hosting](#)
 - [OSU Open Source Lab](#)
 - [Yahoo! Inc.](#)
 - [NEXCESS.NET](#)
 - [Rackspace](#)
 - [EUKhost](#)
 - [SoHosted Webhosting](#)
 - [Redpill Linpro](#)
 - [Facebook](#)
 - [Krystal.co.uk](#)
 - [ServerGrove](#)
 - [Power & Kinch GmbH](#)

Upcoming conferences: [Ski PHP 2014](#) [Madison PHP Conference](#) [CodeConnexx 2013](#)
Calling for papers: [Ski PHP 2014](#)

[A further update on php.net](#)

24-Oct-2013 We are continuing to work through the repercussions of the php.net malware issue described in a news post earlier today. As part of this, the php.net systems team have audited every server operated by php.net, and have found that two servers were compromised: the server which hosted the [www.php.net](#), [static.php.net](#) and [git.php.net](#) domains, and was previously suspected based on the JavaScript malware, and the server hosting [bugs.php.net](#). The method by which these servers were compromised is unknown at this time.

All affected services have been migrated off those servers. We have verified that our Git repository was not compromised, and it remains in read only mode as services are brought back up in full.

As it's possible that the attackers may have accessed the private key of the php.net SSL certificate, we have revoked it immediately. We are in the process of getting a new certificate, and expect to restore access to php.net sites that require SSL (including [bugs.php.net](#) and [wiki.php.net](#)) in the next few hours.

To summarise, the situation right now is that:

- JavaScript malware was served to a small percentage of php.net users from the 22nd to the 24th of October 2013.
- Neither the source tarball downloads nor the Git repository were modified or compromised.
- Two php.net servers were compromised, and have been removed from service. All services have been migrated to new, secure servers.
- SSL access to php.net Web sites is temporarily unavailable until a new SSL certificate is issued and installed on the servers that need it.

Stable Releases

[Current PHP 5.5 Stable: 5.5.5](#)
[Current PHP 5.4 Stable: 5.4.21](#)
[Current PHP 5.3 Stable: 5.3.27](#)

Release Candidates

[5.5.6RC1 \(31 Oct 2013\)](#)
[5.4.22RC1 \(31 Oct 2013\)](#)

Upcoming Events [\[add\]](#)

November

- ### Conferences
- [TrueNorthPHP](#)
 - [CodeConnexx 2013](#)
 - 16. [Madison PHP Conference](#)**
 - [ZendCon Europe 2013](#)
 - [PHP Forum 2013](#)
 - [Forum PHP 2013](#)

- ### User Group Events
- 05. [SW Florida Linux Users Group](#)**
 - [Berlin PHP Usergroup Meeting](#)
 - [PHPNW: PHP North West user group](#)



PHP Download Page

dismiss Step into the future! Click here to switch to the beta php.net site

search for _____ in the function list

Binaries for other systems

We do not distribute UNIX/Linux binaries. Most Linux distributions come with PHP these days, so if you do not want to compile your own, go to your distribution's download site. Binaries available on external servers:

- AS/400
- Mac OS X (AMPPS)
- Mac OS X (MAMP)
- BitNami (Windows, MacOSX, Linux)
- Novell NetWare
- OS/2
- RISC OS
- SGI IRIX 6.5.x
- Solaris (SPARC, INTEL)
- Solaris OpenCSW packages
- Redhat/CentOS Binaries (IUS)
- Fedora/Redhat/CentOS Binaries (Remi)

Development and archive versions

Regular source and binary snapshots are available from snaps.php.net. These are not intended for production use!

To download the very latest development

PHP 5.5.5 (Current Stable)

Complete Source Code:

- [PHP 5.5.5 \(tar.bz2\)](#) [12,254Kb] - 17 Oct 2013
md5: 186c330c272d6322d254db9b2d18482a
- [PHP 5.5.5 \(tar.gz\)](#) [15,899Kb] - 17 Oct 2013
md5: 6bb31ee3466ed7a47943dcc04dd64195
- [PHP 5.5.5 \(tar.xz\)](#) [9,747Kb] - 17 Oct 2013
md5: a4788118fdb0c4d8cef08be72025e983
- [Windows 5.5.5 binaries and source](#)
- [Changelog for PHP 5.5.5](#)

Click here to go the download page for Windows machines

PHP 5.4.21 (Old Stable)

Complete Source Code:

- [PHP 5.4.21 \(tar.bz2\)](#) [11,429Kb] - 17 Oct 2013
md5: 3dcf021e89b039409d0b1c346b936b5f
- [PHP 5.4.21 \(tar.gz\)](#) [14,451Kb] - 17 Oct 2013
md5: cc8da0d18683e3a83b332f264af7ca83
- [Windows 5.4.21 binaries and source](#)
- [Changelog for PHP 5.4.21](#)

PHP 5.3.27 (Old Stable)

Complete Source Code:

- [PHP 5.3.27 \(tar.bz2\)](#) [11,165Kb] - 11 Jul 2013
md5: 25ae23a5b9615fe8d33de5b63e1bb788
- [PHP 5.3.27 \(tar.gz\)](#) [14,657Kb] - 11 Jul 2013
md5: bd03bfa9e7db40b6f2950fcbcf6a8276
- [Windows 5.3.27 binaries and source](#)



Read This!

Which version do I choose?

IIS

If you are using PHP with IIS you should use the Non-Thread Safe (NTS) versions of PHP.

Apache

Please use the Apache builds provided by [Apache Lounge](#). They also provide VC11 builds of Apache for [x86 and x64](#). We use their binaries to build the Apache SAPIs.

If you are using PHP with Apache 1 or Apache2 from [apache.org](#) (not recommended) you need to use the older VC6 versions of PHP compiled with the legacy Visual Studio 6 compiler. Do **NOT** use VC9+ versions of PHP with the apache.org binaries.

VC9 and VC11

More recent versions of PHP are built with VC9 or VC11 (Visual Studio 2008 and 2012 compiler respectively) and include improvements in performance and stability.

The VC9 builds require you to

▪ [Debug Pack](#) [9.49MB]
sha1: ffb75867826d7aa7b9069e1012b52a

VC11 x64 Non Thread Safe (2013-Oct-17 00:30:10)

Note: x64 builds are currently [experimental](#)

- [Zip](#) [19.5MB]
sha1: 9f8e094de4292e8111573aec55bebf7d4d1973ca5
- [Debug Pack](#) [9.21MB]
sha1: ccb8ce8c07e7277e1a583fd7ff486e50e53b772d

VC11 x64 Thread Safe (2013-Oct-17 00:30:13)

Note: x64 builds are currently [experimental](#)

- [Zip](#) [19.62MB]
sha1: 703369b29e35e0620b939356c21a6dd73f20aefc
- [Debug Pack](#) [9.38MB]
sha1: 3f6a9ed153a5c475c1188ffcb947badd4ea6c324

PHP 5.4 (5.4.21)

[Download source code](#) [20.89MB]

VC9 x86 Non Thread Safe (2013-Oct-17 00:26:15)

- [Zip](#) [15.88MB]
sha1: 0ad852597000df64c7905cd9794b831153234940



Windows is being worked on. Windows DLL can be downloaded right from the [PECL website](#).

The PECL extension [release](#) and [snapshot](#) build directories are browsable directly.

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VC11 x86 Thread Safe (2013-Oct-17 00:30:06)

- [Zip](#) [18.33MB]
sha1: 3b2d3901d66cb5b433cb6d7545aa22cc928b9a77
- [Debug Pack](#) [9.49MB]
sha1: ffb75867826d7aa7b9069e1812b52a9ed4d2a337

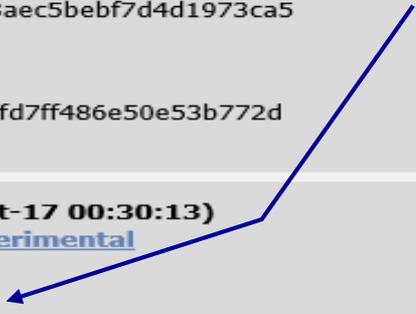
VC11 x64 Non Thread Safe (2013-Oct-17 00:30:10)
Note: x64 builds are currently [experimental](#)

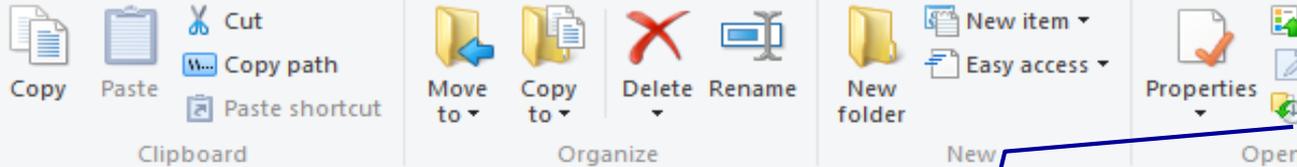
- [Zip](#) [19.5MB]
sha1: 9f8e094de4292e8111573aec5bebf7d4d1973ca5
- [Debug Pack](#) [9.21MB]
sha1: ccb8ce8c07e7277e1a583fd7ff486e50e53b772d

VC11 x64 Thread Safe (2013-Oct-17 00:30:13)
Note: x64 builds are currently [experimental](#)

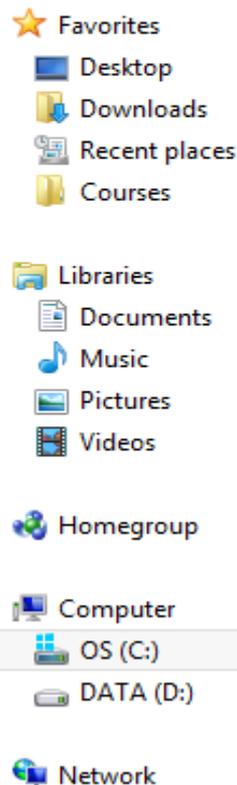
- [Zip](#) [19.62MB]
sha1: 703369b29e35e0620b939356c21a6dd73f20aefc
- [Debug Pack](#) [9.38MB]
sha1: 3f6a9ed153a5c475c1188ffcb947badd4ea6c324

Scroll down this page to get to the proper version for Click here to go the download page for Windows machines





Computer > OS (C:) > php



Name	Date modified	Type	Size
libenchant_myspell.dll	11/5/2013 5:01 PM	Application extens...	288 KB
libintl.dll	11/5/2013 5:01 PM	Application extens...	62 KB
libpq.dll	11/5/2013 5:01 PM	Application extens...	154 KB
libsasl.dll	11/5/2013 5:01 PM	Application extens...	232 KB
license	11/5/2013 5:01 PM	Text Document	4 KB
news	11/5/2013 5:01 PM	Text Document	433 KB
phar.phar	11/5/2013 5:01 PM	Windows Batch File	1 KB
pharcommand.phar	11/5/2013 5:01 PM	PHAR File	52 KB
php	11/5/2013 5:01 PM	Application	72 KB
php	11/5/2013 5:01 PM	GIF File	3 KB
php	11/5/2013 5:23 PM	Configuration sett...	72 KB
php.ini-development	11/5/2013 5:01 PM	INI-DEVELOPMEN...	72 KB
php.ini-production	11/5/2013 5:01 PM	INI-PRODUCTION...	72 KB
php5apache2_4.dll	11/5/2013 5:01 PM	Application extens...	31 KB
php5ts.dll	11/5/2013 5:01 PM	Application extens...	7,033 KB
php-cgi	11/5/2013 5:01 PM	Application	56 KB
php-win	11/5/2013 5:01 PM	Application	29 KB
readme-redis-bins	11/5/2013 5:01 PM	Text Document	21 KB
snapshot	11/5/2013 5:01 PM	Text Document	4 KB
ssleay32.dll	11/5/2013 5:01 PM	Application extens...	335 KB

Locate the two default initialization files. Copy the one named `php.ini-production` into a file named `php.ini`.





```
46 #
47 # Mutex default:logs
48 #
49 #
50 # Listen: Allows you to bind Apache to specific IP addresses and/or
51 # ports, instead of the default. See also the <VirtualHost>
52 # directive.
53 #
54 # Change this to Listen on specific IP addresses as shown below to
55 # prevent Apache from glomming onto all bound IP addresses.
56 #
57 #Listen 12.34.56.78:80
58 #Listen 80
59 Listen 8081
60
61 LoadModule php5_module "C:/php/php5apache2_4.dll"
62 AddType application/x-httpd-php .php
63 AddHandler application/x-httpd-php .php
64 PHPIniDir "C:/php"
65
66 #
67 # Dynamic Shared Object (DSO) Support
68 #
69 # To be able to use the functionality of a module which was built as a DSO you
```

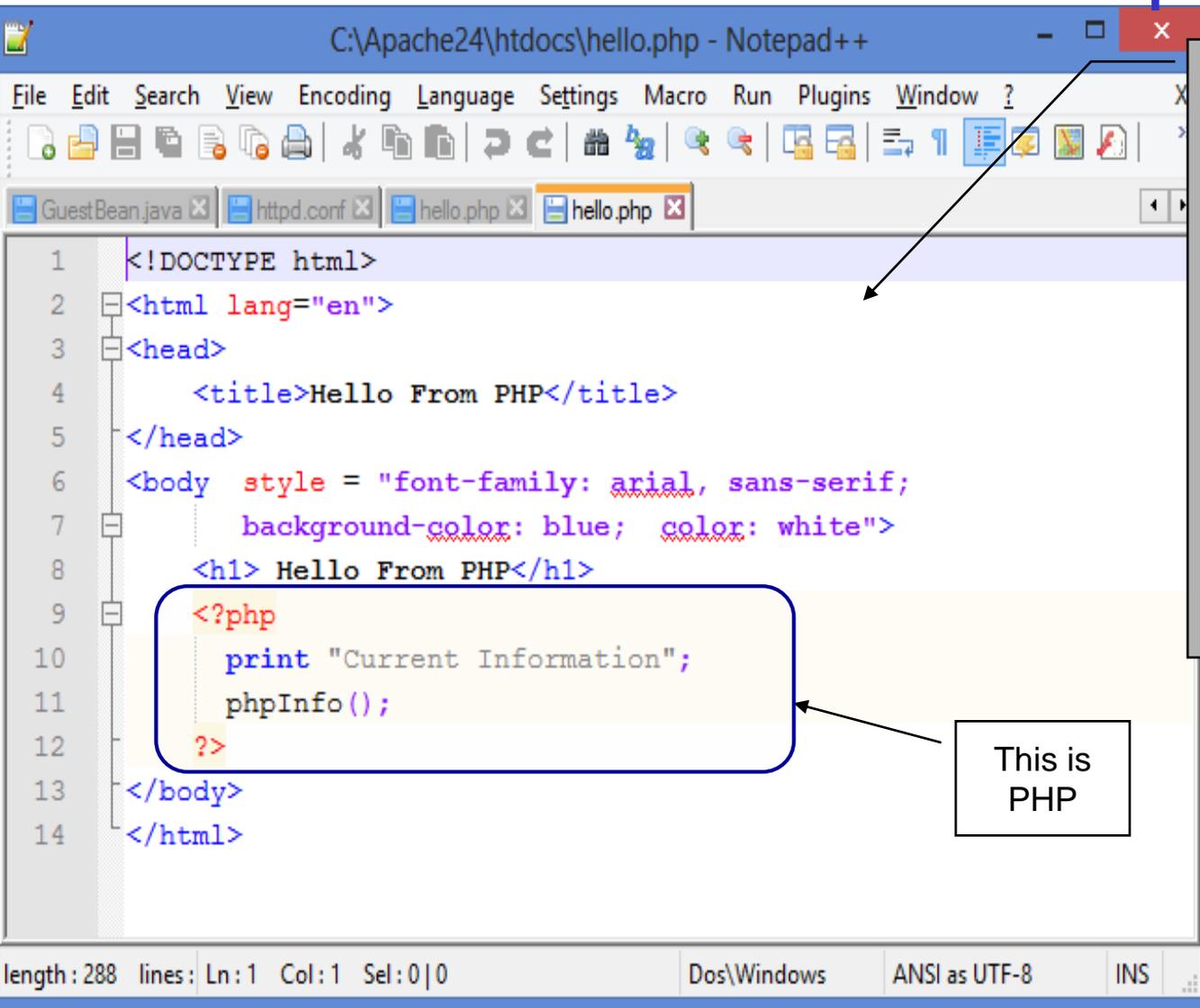
IMPORTANT !!!

You must modify your Apache configuration file to load the PHP5 module at server startup. To do this add these lines to your Apache httpd.conf file. Technically, they should go in different sections of this file, but it will work fine as a block, so put them just after the line you added to set the port.



A PHP Test Example

Create this file named `hello.php` and save it to the `htdocs` folder in the Apache server directory. Then start your browser and enter the URL: <http://localhost:8081/hello.php> and you should see output similar to that shown on the next slide.



```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4     <title>Hello From PHP</title>
5 </head>
6 <body style = "font-family: arial, sans-serif;
7     background-color: blue; color: white">
8     <h1> Hello From PHP</h1>
9     <?php
10     print "Current Information";
11     phpInfo ();
12     ?>
13 </body>
14 </html>
```

This is PHP

length: 288 lines: Ln: 1 Col: 1 Sel: 0|0 Dos\Windows ANSI as UTF-8 INS



Hello From PHP

Current Information

PHP Version 5.5.5



System	Windows NT HEC-236-G4TB8Y1 6.2 build 9200 (Windows 8 Business Edition) AMD64
Build Date	Oct 15 2013 11:44:06
Compiler	MSVC11 (Visual C++ 2012)
Architecture	x64
Configure Command	<pre> cscript /nologo configure.js "--enable-snapshot-build" "--disable-isapi" "--enable-debug-pack" "--without-mssql" "--without-pdo-mssql" "--without-pi3web" "--with-pdo-oci=C:\php- sdk\oracle\instantclient10\sdk,shared" "--with-oci8=C:\php- sdk\oracle\instantclient10\sdk,shared" "--with-oci8-11g=C:\php- sdk\oracle\instantclient11\sdk,shared" "--enable-object-out-dir=../obj/" "--enable-com- dotnet=shared" "--with-mcrypt=static" "--disable-static-analyze" "--with-pgo" </pre>
Server API	Apache 2.0 Handler
Virtual Directory Support	enabled
Configuration File (php.ini) Path	C:\Windows
Loaded Configuration File	C:\php\php.ini
Scan this dir for additional .ini files	(none)

The default directory for the php.ini file.



A Second PHP Example

- The following two pages illustrate another simple PHP “hello world” program.
- In PHP, code is inserted between the scripting delimiters `<?php` and `?>`. PHP code can be placed anywhere in HTML markup, as long as the code is enclosed in these scripting delimiters.
- Place all of your HTML and PHP files inside the `htdocs` directory of the Apache server directory.



welcome.php

```

1 <!DOCTYPE html>
2 <!-- welcome.php -->
3 <!-- HTML file containing a PHP script. -->
4
5 <?php
6     $name = "Mark"; //php declaration and assignment
7 >?>
8
9 <html lang="en">
10 <!-- head section of document -->
11 <head>
12     <title>A Simple PHP Document</title>
13 </head>
14
15 <!-- body section of document -->
16 <body style = "font-size: 2em; font-family: arial, sans-serif;
17     background-color: #856363" background=image1.jpg>
18 <hr>
19 <font color = blue><h1> Generating HTML From PHP </h1></font color>
20 <p>
21     <strong>
22         <!--print variable name's value in the message-->
23         <?php
24             print("This is your first crack at running a PHP script...");
25             print("<HR>");
26             print("Welcome to the world of PHP technology, ");
27         ?>
28     </strong>
29     <font color = green>
30         <?php
31             print("$name");
32         ?>
33     </font color>
34 </p>
35 </body>
36 </html> <!-- end HTML document -->
37
38

```

PHP code

PHP code declaring a variable.

PHP code



Generating HTML From PHP

This is your first crack at running a PHP script...

Welcome to the world of PHP technology, **Mark**



Viewing Client/Server Environment Variables

- Knowledge of a client's execution environment is useful to system administrators who want to provide client-specific information.
- Environment variables contain information about a script's environment, such as the client's web browser, the HTTP host and the HTTP connection.
 - The table on the next page summarizes some of the superglobal arrays defined by PHP.
- The HTML document on page 27 displays the values of the server's environment variables in a table. PHP stores the server variables and their values in the `$_SERVER` array. Iterating through the array allows one to view all of the server's environment variables.



Some Superglobal Environment Arrays

Variable Name	Description
<code>\$_SERVER</code>	Data about the currently running server.
<code>\$_ENV</code>	Data about the client's environment.
<code>\$_GET</code>	Data posted to the server by the <code>get</code> method.
<code>\$_POST</code>	Data posted to the server by the <code>post</code> method.
<code>\$_COOKIE</code>	Data contained in cookies on the client's computer.
<code>\$GLOBALS</code>	Array containing all global variables.



server.php

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <!-- server.php -->
4 <!-- Program to display $_SERVER variables -->
5 <head>
6     <title>SERVER Variables Display</title>
7 </head>
8 <body style = "font-family: arial, sans-serif;
9     background-color: #856363" background=image1.jpg>
10 <table border = "0" cellpadding = "2" cellspacing = "0"
11     width = "100%">
12 <?php
13     // print the key and value for each element
14     // in the $_SERVER array
15     foreach ( $_SERVER as $key => $value )
16         print( "<tr><td bgcolor = \"#11bbff\">
17             <strong>$key</strong></td>
18             <td>$value</td></tr>" );
19 <?>
20 </table>
21 </body>
22 </html>
```

Iterate through the
\$_SERVER array to list all
of the SERVER variables for
the current server on which
PHP is running.



Output from
executing
server.php

```
SERVER Variables Display x
localhost:8081/server.php
Apps Zimbra Web Client L... Cycling News & Rac... News 13 - Orlando ... Imported From IE
HTTP_HOST localhost:8081
HTTP_CONNECTION keep-alive
HTTP_CACHE_CONTROL max-age=0
HTTP_ACCEPT text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
HTTP_USER_AGENT Mozilla/5.0 (Windows NT 6.2; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/30.0.1599.101 Safari/537.36
HTTP_ACCEPT_ENCODING gzip, deflate, sdch
HTTP_ACCEPT_LANGUAGE en-US,en;q=0.8
HTTP_IF_NONE_MATCH "345-4e22dceb1b100"
HTTP_IF_MODIFIED_SINCE Tue, 23 Jul 2013 13:31:16 GMT
PATH c:\Program Files (x86)\AMD APP\bin\x86_64;c:\Program Files (x86)\AMD APP\bin\x86;c:\Program Files (x86)\Intel\Intel(R) Management Engine Components\DAL;c:\Program Files (x86)\Intel\Intel(R) Management Engine Components\IPT;c:\Program Files (x86)\ATI Technologies\ATI.ACE\Core-Static;c:\Program Files (x86)\Windows Live\Shared;c:\Program Files (x86)\MySQL\MySQL Utilities 1.3.4;c:\Program Files (x86)\SSH Core Security\SSH Secure Shell
SystemRoot C:\Windows
COMSPEC C:\Windows\system32\cmd.exe
PATHEXT .COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC
WINDIR C:\Windows
SERVER_SIGNATURE
SERVER_SOFTWARE Apache/2.4.6 (Win64) PHP/5.5.5
SERVER_NAME localhost
SERVER_ADDR ::1
SERVER_PORT 8081
REMOTE_ADDR ::1
```

