

# P R E S E N TATIO N O N P H P

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**1. Brief History of PHP** 

**2. INSTALLATION** 

**3. Examples** 

# Brief History of PHP

PHP (PHP: Hypertext Preprocessor) was created by Rasmus Lerdorf in 1994. It was initially developed for HTTP usage logging and server-side form generation in Unix.

PHP 2 (1995) transformed the language into a Server-side embedded scripting language. Added database support, file uploads, variables, arrays, recursive functions, conditionals, iteration, regular expressions, etc.

PHP 3 (1998) added support for ODBC data sources, multiple platform support, email protocols (SNMP,IMAP), and new parser written by Zeev Suraski and Andi Gutmans.

PHP 4 (2000) became an independent component of the web server for added efficiency. The parser was renamed the Zend Engine. Many security features were added.

PHP 5 (2004) adds Zend Engine II with object oriented programming, robust XML support using the libxml2 library, SOAP extension for interoperability with Web Services, SQLite has been bundled with PHP

# Why is PHP used?

Easy to Use Code is embedded into HTML. The PHP code is enclosed in special start and end tags that allow you to jump into and out of "PHP mode".

> <html> <head> <title>Example</title> </head> <body>

<?php echo "Hi, I'm a PHP script!"; ?>

> </body> </html>

# Why is PHP used?

Cross Platform Runs on almost any Web server on several operating system. One of the strongest features is the wide range of Supported database.

Web Servers: Apache, Microsoft IIS, Caudium, Netscape Enterprise Server Operating Systems: UNIX (HP-UX,OpenBSD,Solaris,Linux), Mac OSX, Windows NT/98/2000/XP/2003

Supported Databases: Adabas D, dBase,Empress, FilePro (read-only), Hyperwave,IBM DB2, Informix, Ingres, InterBase, FrontBase, mSQL, Direct MS-SQL, MySQL, ODBC, Oracle (OCI7 and OCI8), Ovrimos, PostgreSQL, SQLite, Solid, Sybase, Velocis,Unix dbm

# INSTALLATION

Introduction

Introduction and Scope
 Choosing an installation method
 Windows InstallShield Installation
 Manual Installation

Introduction

Scope of this presentation

NOT for production systems
 Assumes Windows and Web Server are already installed and configured
 Developing and testing only

- Developing and testing only
- Covers default installation, no extensions

Introduction

Supported 32-bit Windows Platforms (Win32)

 Windows 9x (95/98/ME)
 Windows NT (NT/2000/XP)
 Workstation/Home/Professional Server Editions

#### Introduction

Supported web server packages

MS Personal Web Server (PWS) 3+
 MS Internet Information Server (IIS) 3+
 Apache Web Server 2+
 Netscape, iPlanet
 Many many more

Introduction

A quick word on security

Web servers are targets!

- Stay patched
- MS Baseline Security Analyzer
- IIS Lockdown Tool
- Work offline if possible

**Choosing an Installation Method** 

- Windows InstallShield
- Manual Binary Installation
- Building from Source

(Beginners) (Intermediate) (Advanced) **Installing PHP on Windows Choosing an Installation Method** 

Windows Installshield

 Quick, small, easy
 Configures some common settings for a few web servers (IIS, PWS, Xitami, Apache)
 Only installs CGI version (php.exe)
 NOT a secure or production configuration by default
 Limited extensions
 A quick-and-easy way to get your feet wet with PHP **Installing PHP on Windows Choosing an Installation Method** 

Manual Binary Installation

Bigger download, but still less than 6MB
 Configuration is manual, but DLLs are available for all supported web servers.

Installs CGI version OR new ISAPI version.

Forces you to consider security and performance up-front with manual configuration of php.ini

Requires manual copying of files, and setting of permissions

Requires manual configuration of your web server

**Installing PHP on Windows Choosing an Installation Method** 

Building from source

A fun weekend project (not for the faint of heart)
 Poorly documented ("set and forget")
 Requires MS Visual Studio (C++)

Example environment

Windows XP Professional (SP 1)
IIS 5.1
PHP 4.3.1

#### Step 1: Download the most recent installer and execute

#### 🐴 Welcome





Welcome to PHP 4.3.1 Setup program. This program will install PHP 4.3.1 on your computer.

You may need to stop your web server before installation. IIS and PWS do not need to be stopped.

Click Cancel to quit Setup and then stop your web server if necessary. Click Next to continue with the Setup program .

WARNING: This program is protected by copyright law and international treaties.

Installer version number 1.0.18



#### Step 2: Choose Standard or Advanced Installation

🔏 Installation Type



Please select the type of installation you require.

🗋 Standard

Advanced

#### Step 3: Choose an installation directory (c:\php)

🔏 Choose Destination Location



Setup will install PHP 4.3.1 in the following folder.

To install into a different folder, click Browse, and select another folder.

You can choose not to install PHP 4.3.1 by clicking Cancel to exit Setup.

Destination Folder	
C:\PHP	B <u>r</u> owse





Cancel

## Windows InstallShield Installation (IIS)

#### Step 4: SMTP settings

#### Mail Configuration



Please enter the address of your SMTP server.

localhost

Please enter the 'from' address for the mail function.

me@localhost.com



<u>N</u>ext >

×

#### Step 4: Error Settings (Display Everything)

#### 🔏 Error Reporting Level



Please select the level of error reporting you require.

- Display all errors warnings and notices (strongly recommended during development)
- O Display all errors and warnings
- O Display all errors

Next >

×

### Windows InstallShield Installation (IIS)

#### Step 5: Select your web server

#### 🐴 Server Type



Please select the type of http server you wish to configure to run php.

- Microsoft PWS on Windows 9x or ME
- Microsoft PWS on NT Workstation
- Microsoft IIS 3 or lower
- Microsoft IIS 4 or higher
- O Apache
- 🔍 Xitami
- None (or other server)- I will configure the web server manually.



#### Step 6: Register file extensions (.php)

#### 🔏 File Extensions



Please select the file extensions you wish to be interpreted by php.

- .php
- .phtml (deprecated)
- \_\_\_\_\_.php3 (deprecated)





X

### Windows InstallShield Installation (IIS)

#### Step 7: Web Server Configuration

**IIS Scriptmap Node Selection** 

Please select the scriptmap nodes in your IIS structure to which you wish to add the PHP mappings. File extensions to be mapped are: .php

WWW Service Master Properties
 Default Web Site

Select all

Select none



Cancel

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File

Done

Step 8: Testing

index.php

<?php

phpinfo();

?>

phpinfo() - Microsoft Internet Explorer G • D · N 🗈 🏠 🔎 🛧 🌚 🕹 🙆 • 😓 🖸 • 🗖 🤹 🎄 • Edit View Favorites Tools Help Address 🙆 http://localhost/index.php 🔽 🔁 Go PHP Version 4.3.1 Windows NT localhost 5.1 build 2600 System **Build Date** Feb 15 2003 23:02:25 Server API CGI/FastCGI Virtual Directory Support enabled Configuration File (php.ini) Path C:\WINDOWS\php.ini PHP API 20020918 PHP Extension 20020429 Zend Extension 20021010 Debug Build no Thread Safety enabled **Registered PHP Streams** php, http, ftp, compress.zlib

This program makes use of the Zend Scripting Language Engine: Zend Engine v1.3.0, Copyright (c) 1998-2002 Zend Technologies



#### **PHP Credits**

Windows Manual Installation (IIS)

Example environment

Windows 2000 Server (SP 3)
 IIS 5.0
 PHP 4.3.1

For brevity, the following conventions will be Used:

**%SROOT%** - The Systems Windows directory, often referred to as "System Root". Depending on version of Windows, this may be c:\windows or c:\winnt

**System Folder** – The folder where your Windows installation keeps important system files. Usually %SROOT%\System32

# **Installing PHP on Windows** Windows Manual Installation (IIS)

#### Step 1: Download most recent distribution and unzip to

Step 2: Copy php4ts.dll and contents of /dlls to the System Folder

Installation directory

(c:\php)



## **Installing PHP on Windows** Windows Manual Installation (IIS)

#### Step 3: Copy php.ini-dist to %SROOT% and rename php.ini

🔯 C:\WINNT				_	
File Edit View Favorites Tools Help					
🔄 Back 👻 🤿 👻 🔁 🔞 Search 🛛 🍄 Folder	s 🔇 🖺 🖞 X ท 🗐 -				
Address 🗋 C:\WINNT					r∂ Go
Folders ×		Name	Size	Туре	
🗹 Desktop		🐻 ODBC.INI	1 KB	Configuration Setting	js
🗄 🗠 My Documents	Real Provide State	🐻 ODBCINST.INI	5 KB	Configuration Setting	js
🖻 🖳 My Computer	WINNT	👼 odbctst.INI	0 KB	Configuration Setting	js
🕀 🚽 3½ Floppy (A:)		E OEWABLog.txt	2 KB	Text Document	
🖻 🚍 Local Disk (C:)	php.ini	👼 oraodbc.ini	1 KB	Configuration Setting	js
🕀 🧰 Documents and Settings	Configuration Settings	📓 php.ini	38 KB	Configuration Setting	js
🗄 💼 Inetpub	Modified: 2/15/2003 11:20 PM	🙋 poledit.exe	115 KB	Application	
🕀 💼 oracle		🎬 Prairie Wind.bmp	65 KB	Bitmap Image	
😑 💼 php	Size: 38 KB	🗒 q323172.log	58 KB	Text Document	
cli 🛛 🖓 🖓	Attributes: (normal)	🗒 Q323255.log	58 KB	Text Document	
🗀 dlls	Such al algebras to as AM	🗒 Q324096.log	57 KB	Text Document	
extensions	Created: 3/28/2003 10:25 AM	🗒 Q324380.log	58 KB	Text Document	
mibs	Accessed: 3/28/2003 10:25 AM	🗒 Q326830.log	57 KB	Text Document	
🗀 openssi	Ourory Administrators	🗒 Q326886.log	58 KB	Text Document	
pdf-related	Owner: Administrators	🗒 Q327696.log	9 KB	Text Document	
sapi		🗒 Q328310.log	50 KB	Text Document	
🕀 🛄 Program Files		🗒 Q329115.log	27 KB	Text Document	
🕀 💼 progs		🗒 Q329170.log	37 KB	Text Document	
- 💭 System Volume Information		🗒 Q329834.log	57 KB	Text Document	
🕀 🔂 WINNT		🗒 Q331953.log	52 KB	Text Document	
		🗒 Q810030.log	32 KB	Text Document	
🕀 🖃 Removable Disk (D:)		🗒 Q810649.log	44 KB	Text Document	
🕀 🧟 Compact Disc (E:)		🗒 Q810833.log	55 KB	Text Document	
🗄 🗟 Control Panel		🗒 Q811630.log	60 KB	Text Document	
🗄 🔠 My Network Places		🗒 Q814033.log	5 KB	Text Document	
🛜 Recycle Bin		🗒 Q815021.log	5 KB	Text Document	
🖲 Internet Explorer		💕 regedit.exe	71 KB	Application	
		REGLOCS.OLD	8 KB	OLD File	
		📲 Rhododendron.bmp	17 KB	Bitmap Image	
		🚆 River Sumida.bmp	27 KB	Bitmap Image	
	<u> </u>	•			
Type: Configuration Settings Size: 37.9 KB			37.9 KB	🔍 My Computer	1.

#### Windows Manual Installation (IIS)

Step 4: Edit php.ini

Extensions directory. By default, extensions are kept in the "extensions" folder of the installation directory. extension\_dir = c:\php\extensions\

Document Root. This is the local folder that your web server uses as the web publishing root directory. doc\_root = c:\Inetpub\wwwroot

For IIS installations you MUST turn off cgi.force\_redirect cgi.force\_redirect = 0

#### Windows Manual Installation (IIS)

Step 5: Set file permissions

The following files and folders must have "read" and "execute" permissions enabled for the system's web user (I\_USR\_hostname)

%SROOT%\php.ini C:\php\

#### Windows Manual Installation (IIS)

Step 6: Configure your web server

Modify IIS configuration settings using the **Internet Services Manager** or **Internet Information services** tool in

Control Panel → Administrative Tools

Right-click on the **server name** (IIS 5.0) or **Web Sites** (IIS 5.1) and select **Properties**.



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#### Windows Manual Installation (IIS)

#### Step 6a: Edit Master Properties

dogface Pr	operties	? ×
Internet Info	rmation Services	
Master F	Properties Edit the properties inherited by all sites created on this computer. Master Properties: WWW Service	
🗖 Enat	ble Bandwidth Throttling	
Limit ne comput	etwork bandwidth available for all Web and FTP sites on this ter.	
Maximu	im network use: 1,024 kb/	s
	er MIME Map Configure the MIME types for all web sites on this computer. Edit	]
	OK Cancel Apply He	elp

## **Installing PHP on Windows** Windows Manual Installation (IIS)

#### Step 6b: Select Configuration under Home Directory

WW Service Master Properties for dogface						
Documents	Directory Sec	Directory Security   HTTP Headers   Custom Errors   Serv				
Web Site	Operators	Performance	ISAPI Filters	Home Directory		
When conne	cting to this res	ource, the content	should come from:			
	💿 A dir	ectory located on t	his computer			
	C A sh	are located on ano	ther computer			
	C A rec	direction to a URL				
Local Path:				Browse		
☐ Script so	urce access		_og visits			
Read			ndex this resource			
Write	. <b></b>					
Application (	) browsing Settings					
Application	Jettings					
Application r	name:			Remove		
Starting poin	it KW	/eb Master Properti	es>	Configuration		
Execute Per	missions: No	one	-			
Application (	Protection: Lo			Unload		
- helen session 1.1	Lo	(				
		OK Car	ncel Appl	y Help		

# **Installing PHP on Windows** Windows Manual Installation (IIS)

#### Step 6c: Add an Application Mapping

Application Con	figuration	×
App Mappings	App Options Process Options App D	)ebugging
Cache ISA Application № Extension .rpt .shtx .csp .cri .cwr .htw .ida .idq .asp .cer .cdx .asp .cer	PI applications fappings Executable Path C:\Program Files\Seagate Software\W( C:\Prog	Verbs C (all) C (all) C (all) C (all) GET,HEAD GET,HEAD GET,HEAD GET,HEAD GET,HEAD GET,HEAD GET,HEAD GET,HEAD GET,HEAD GET,HEAD
	OK Cancel App	ly Help

### Windows Manual Installation (IIS)

Step 6d: Enter the name and path of the PHP executable. Enter ".php" for the extension. Check "All Verbs" and "Script Engine".

Repeat this process for all extensions you would like your web server to parse as PHP.

Add/Edit Applicati	on Extension Mapping	×
Executable:	C:\php\php.exe %s %s	Browse
Extension:	.php	
_ Verbs		
All Verbs		
C Limit to:		
🔽 Script engine		
Check that file (	exists OK Cancel	Help

Note: Depending on your specific configuration, you may have to enter " %s %S" after the executable name. This may not be necessary on all configurations.

#### Windows Manual Installation (IIS)

#### Step 6e: Click "Select All" to apply settings to all web sites Under Inheritance Overrides.

Inheritance Overrides	×
The following child nodes also define the value of the "Script f overrides the value you have just set. Please select from the lis which should use the new value.	Maps'' property, which st below those nodes
Child Nodes:	
Default Web Site	Select All
OK Cancel	

#### Click OK all the way back to the beginning.

## Windows Manual Installation (IIS)

Step 7: RESTART all web services. It doesn't hurt to reboot Windows.

File

🙆 Done

### Windows Manual Installation (IIS)

🖉 phpinfo() - Microsoft Internet Explorer

Address i http://localhost/index.php

Edit View Favorites Tools Help

Step 8: Testing

index.php

<?php phpinfo(); ?> PHP Version 4.3.1



System	Windows NT localhost 5.0 build 2195
Build Date	Feb 15 2003 23:02:25
Server API	CGI/FastCGI
Virtual Directory Support	enabled
Configuration File (php.ini) Path	C:WVINNT\php.ini
PHP API	20020918
PHP Extension	20020429
Zend Extension	20021010
Debug Build	no
Thread Safety	enabled
Registered PHP Streams	php, http, ftp, compress.zlib

🗢 Back 🔹 🤿 🗸 👔 🖓 🥘 Search 💽 Favorites 🛞 Media 🚳 🖏 🖏

This program makes use of the Zend Scripting Language Engine: Zend Engine v1.3.0, Copyright (c) 1998-2002 Zend Technologies



#### **PHP Credits**

Configuration

🔠 Local intranet

🔻 🔗 Go 🛛 Links 🎽

# EXAMPLES

PHP is a great way to implement templates on your website.

How to implement a simple page counter

Step 1: Universal header and footer in a single file

Create a file called header.php. This file will have all of the header HTML code. You can use FrontPage/Dreamweaver to create the header, but remember to remove the closing </BODY> and </HTML> tags.

Step 2: Universal header and footer in a single file

Next, create a file called footer.php. This file will have all of the

#### Step 3: Universal header and footer in a single file

This is the basic template that you will use on all of the pages. Make sure you name the files with a .php extension so that the server will process the PHP code. In this example, we assume the header and footer files are located in the same directory.

```
<?php
// header
include("header.php");
```

#### **Insert content here!**

```
<?php
```

```
// footer
include("footer.php");
```

#### **Benefits:**

 Any changes to header or footer only require editing of a single file. This reduces the amount of work necessary for

site maintenance and redesign.

- Helps separate the content and design for easier maintenance



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#### **Step 1: Simple Page Counter**

Download the counter file webcounter.txt onto your machine Upload the webcounter.txt file onto your web server (via FTP, WinSCP, etc)

Change the file permissions of the webcounter.txt file to 777 to allow the

Name /		Size	Changed	lat	webcounter.txt Properties
<b>t</b> ]			11/17/2004 2:2		Common
webcounter.ht		1	11/17/2004 2:2		
T Ede	FA				webcounter.txt
IS Copy	FS				
Dupicate	Shift+F5				Location:
Move	FG				
Move to	Shift+F6				Size: 18
× Delete	F8				
P Rename	F2				
					Permissions: Qwmer ♥R ♥W ♥X Set UID Group ♥R ♥W ♥X Set GID Others ♥R ♥W ♥X Sticky bit Ogtal 0777
					OK Cancel

#### **Step 2: Simple Page Counter**

Copy this code into a page where you want a counter.

#### <?php

\$COUNTER\_FILE = "webcounter.txt"; if (file\_exists(\$COUNTER\_FILE)) { \$fp = fopen("\$COUNTER\_FILE", "r+"); flock(\$fp, 1); \$hits = fgets(\$fp, 4096); \$hits += 1; fseek(\$fp,0); fputs(\$fp, \$hits); flock(\$fp, 3); flock(\$fp, 3); fclose(\$fp); }

Step 3: Simple Page Counter Next, output the counter value using PHP. Copy this line after the main block of code.

This page has been viewed <?php echo"\$hits"; ?> times.

That's it! The result should look something similar to:



Step 3: Simple Page Counter You can change the text around the <?php echo"\$hits"; ?> tags to your liking.

<**?php** echo"\$hits"; **?>** visitors.

This example shows How to escape from HTML and enter PHP mode How to output variables onto the screen using PHP

1. How to output variables using PHP

**Echo** is the common method in outputting data. Since it is a language construct, echo doesn't require parenthesis like print().

Output Text Usage: <?php echo "Hello World"; ?> // prints out Hello World

Output the value of a PHP variable: <?php echo "\$hits"; ?> // prints out the number of hits

Echo has a shortcut syntax, but it only works with the "short open tag" configuration enabled on the server. <?= \$hits ?> 49

1. Other uses with echo()

Automatically generate the year on your pages. This will print out ©2004 UC Riverside. ©<?php echo date("Y"); ?> UC Riverside

You will need to escape any quotation marks with a backslash. <?php echo "I said \"She sells sea shells\" "; ?>

# THANK YOU