PHP—An Introduction for Multimedia Novices

Introduction

High-end web pages today offer high levels of interactivity. Visitors to a site might need to search a database to determine the availability of a product, post or retrieve a message from a message board, place an item in a virtual "shopping cart," search for information, or link to another site. HTML, Hypertext Markup Language, may ill-suited for these types of transactions, and other languages may be required or preferred. PHP is one of these other languages. PHP, or Hypertext Prescripting Program, is an open source general-purpose scripting language used primarily for web page development. PHP commands can be embedded into HTML code to allow web page creators to offer advanced features, such as interactivity, with fewer commands than would be necessary with languages such as C or Perl. PHP was written by Rasmus Lerdorf in the mid-1990s to allow him to track visitors to his web page[1]. Since then it has become a highly popular scripting tool.

Significance

As of April 2002, PHP was the fasted growing server-side programming language. It is currently installed on over 24% of all sites on the web.[2] PHP is growing in popularity because of a number of benefits it offers its users. As noted above, PHP allows web developers to easily incorporate interactivity into their products. Currently, CGIs (Common Gateway Interfaces) are the most common way for web servers and users to interact[3]. CGI programs, which can be written in any programming language, are designed to accept and return data that conforms to the CGI specification. However, CGI script slows down servers and consumes memory. PHP "becomes a part of the Web

server;" thus, it is faster and more efficient than running CGI scripts[4]. PHP is considered especially good at database access, disk access, networking, and manipulating text. The language offers native database support for twelve different databases and allows direct access to the databases through SQL statements. An additional advantage is that, as an open-source program, PHP is available free and is constantly being updated and improved by participating programmers.

PHP is considered easy to learn and to use, and its growing popularity is bringing better support and more templates. Its supporters are advocating its use in a broad range of settings, including business settings[5]. For these reasons, multimedia developers may find PHP a tool worth learning.

Discussion

My discussion of PHP will cover the history of PHP and explain some of the language's main uses and features.

What is today PHP began as set of Perl scripts written by Rasmus Lerdorf to track hits on his personal web page. Thus, originally the name PHP was an initialization of Personal Home Page tools. In the earliest versions, it was referred to as PHP/FI; the FI standing for Forms Interpreter. By 1997, PHP/FI had been rewritten in C, released as an open source code, and adopted by thousands of users around the world. That year Andi Gutmans and Zeev Suraski rewrote PHP/FI entirely and, in 1998, released their version under its current name, a recursive acronym of Hypertext Preprocessor. The name change signified that this more powerful version was no longer just for personal use. The Gutmans and Suraski version of PHP was referred to as version 3.0, to indicate that it was the successor to PHP/FI 2.0[6]. The success of PHP 3.0 has been attributed to its strong

extensibility features. These features allowed new programmers to create new modules that increased the usefulness of the language. Version 4.2.2 is the most current version to date, but version 5.0 is currently under development.

The three main purposes for which PHP is currently used are server-side scripting, command-line scripting, and client-side GUI applications. Of these three, server-side scripting is the primary use for PHP. Server-side scripting is used to create web pages that offer interactive features such as collecting data on a form or generating cookies. Server-side scripts are processed by the server rather than the computer of the person viewing the web page. Because of this, PHP code is invisible to the client.

To use PHP for server-side scripting requires a PHP parser, a web browser and a web server. PHP has a direct server interface module for many popular servers, including Apache, Microsoft IIS, Netscape, and iPlanet. With support for PHP activated on the server, the developer can create .php files and place them in the web directory. The server will parse the files with no extra tools required. PHP scripts are written like HTML files (using HTML tags), but with a special set of commands available. A special format, <?php, indicates the beginning of a PHP tag, while ?> is a closing tag that indicates a return to HTML. The following is a sample PHP script[7]:

```
<html>
 <head>
  <title>PHP Test</title>
 </head>
 <body>
 <?php echo "Hello World<p>"; ?>
 </body>
</html>
```

The sixth line, which appears in bold print, is the PHP statement. The PHP start and end tags identify this line as a PHP statement. The rest of the script is written in HTML.

Using PHP tags allows the user to move in and out of PHP mode as necessary when scripting. This file would be saved with a .php suffix. PHP can output HTML as well as images, PDF files, Flash movies, and any XML file. The Online Manual at the PHP web site notes: "PHP can autogenerate these files, and save them in the file system, instead of printing it out, forming a server-side cache for your dynamic content." [8]

The list of features and functions of PHP listed in the on-line manual is far too extensive to treat in full here. The manual's table of contents may be accessed at http://www.php.net/manual/en/. PHP is especially well suited for creating database-enabled websites. PHP supports numerous databases, including those listed below[9]:

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

PHP supports the world standard for databases, Open Database Connection, and allows access to any database that supports this standard. PHP also offers such useful functions as a search engine and cyberpayment.

Summary

PHP is an open-source, server-side programming language that offers the ability to easily create interactive websites with many advanced features. It can be used on any operating system, offers many different functions, and is especially well regarded for its easy compatibility with a number of databases. Its growing popularity means many

extensions will be available now and in the future. Best of all it is available for free. Novice multimedia developers currently using HTML might find PHP a useful and inexpensive tool with which to improve their work.

References Used

[1] http://www.webreference.com/new/991028.html

[2] http://www.imakenews.com/badblue/e_article000080431.cfm. Accessed at 11:42 p.m. July 27, 2002.

[3] http://webopedia.internet.com/TERM/C/CGI.html

[4] http://www.webreference.com/new/991028.html

[5] http://www.imakenews.com/badblue/e_article000080431.cfm. Accessed at 11:42 p.m. July 27, 2002.

[6] http://www.php.net/manual/en/history.php, accessed at 11:07 p.m., July 28, 2002.

[7]The example is taken from: http://www.php.net/manual/en/tutorial.firstpage.php Accessed at 8:41 p.m., July 29, 2002.

[8] http://www.php.net/manual/en/intro-whatcando.php. Accessed at 8:46 p.m., July 29, 2002.

[9] http://www.php.net/manual/en/intro-whatcando.php. Accessed at 9:13 p.m., July 29, 2002

Related Links on the Web

http://www.webreference.com/new/991028.html#feature

http://www.php.net/

http://www.php.net/manual/en/

http://www.php.net/manual/en/tutorial.php

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