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“Introduction”

A Programmer’s Introduction to PHP 4.0

by William Jason Gilmore

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A Programmer's Introduction to PHP 4.0

W. J. Gilmore

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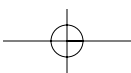
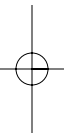
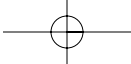
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For my mother and father,
Judith and John Gilmore.



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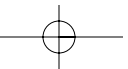
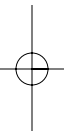
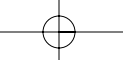
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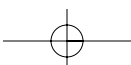
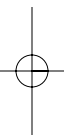
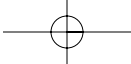
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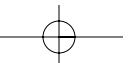
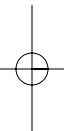
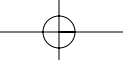


Introduction

Seriously though, was there life before the Web? Growing up today, one would hardly think so. The advent of the Internet has provided a basis for communication unparalleled in the history of mankind, with people both young and not so young using it as a means for shopping, learning, and communicating. In just a few short years following its inception, aspiring entrepreneurs have made it big, corporate empires have been built and lost, and entire economies are booming, all due in part to the vision of Tim Berners-Lee and his colleagues that the world might one day be interconnected via hyperlinks.

Of course, the Web has progressed substantially over the last ten years, beginning largely as a tool for scientific research and soon evolving to one capable of retrieving sometimes mind-boggling amounts of information. Perhaps the single most important contributing agent to the aggregation of this information is the ease in which it can be published to the Web. With minimal knowledge, a person can download a text editor, FTP software, and Web browsers and consequently be “published” to the electronic media.

However, the process behind the creation and maintenance of dynamic, large-scale Web sites tends to be somewhat more complicated. Typically incorporating features such as user interaction, database mining, and multiplatform accessibility, development of a professional Web service can quickly become a major undertaking. If you are interested in learning more about how these types of services can be constructed and deployed, this book is for you.



How To Read This Book

My main goal is to teach PHP in a way that is of immediate benefit to the user; I have no interest in blindly reciting information that can be easily read in the on-line PHP documentation. Rather, I've attempted to provide only information that will be of interest to the majority of Web developers, leaving some of the more obscure concepts to be learned in the interested reader's own time. Concluding projects that relate to the subject matter discussed in the respective chapters are included when deemed necessary, giving the reader some extra insight into how that particular aspect of PHP can be put to practical use.

The PHP scripting language is the culmination of the collaboration of development efforts across the globe, resulting in the creation of a wonderfully rich and powerful Web development language. The sixteen chapters in this book delve into the many features that make this language so popular, beginning with a thorough introduction of the general concepts and constructs of the language, then moving into issues pertaining to Web development, such as building dynamic pages, creating dynamic links, and database interfacing. Finally, attention is directed toward advanced Web development and the role PHP can play in it, discussing XML, JavaScript, COM objects, and security.

Specifically, the book is divided into three parts. Part I, "The Basics," includes Chapters 1 through 8.

Chapter 1, "An Introduction to PHP," introduces PHP, its history, and its key features. Instructions regarding how to install and configure PHP and Apache are also provided. The chapter concludes with a survey of the rudimentary PHP syntax needed to create a basic script.

Chapter 2, "Variables and Data Types," describes the various data formats supported by PHP and how variables are named and used to store information.

Chapter 3, "Expressions, Operators, and Control Structures," expands on the material presented in Chapter 2, introducing how variable values are manipulated. Control structures are also introduced, providing you with the tools to begin creating larger and more complex scripts.

Chapter 4, "Functions," discusses the many underlying details of building modularized, reusable PHP code.

Chapter 5, "Arrays," introduces arrays, providing explanation and examples regarding the creation and manipulation of single and multidimensional arrays of both indexed and associative types.

Chapter 6, "Object-Oriented PHP," highlights PHP's object-oriented features. Although not a full-featured object-oriented language, PHP provides support for several of the basic OOP concepts that can contribute greatly to efficient code development and maintenance.

How to Read This Book

Chapter 7, “File I/O and the File System,” delves into one of PHP’s noted features, manipulation of data files. Information is also provided regarding how PHP can interact with the many facets of server directories.

Chapter 8, “Strings and Regular Expressions,” discusses string manipulation through the use of predefined functionality and regular expressions. Both POSIX and Perl-type regular expressions are introduced.

Part II, “PHP and the Web,” builds on the information covered in the first eight chapters, using it as a basis for developing Web applications. Part II contains Chapters 9 through 13.

Chapter 9, “PHP and Dynamic Site Development,” primes the reader on the very basic concepts of using PHP to create dynamic Web sites. Dynamic content, link creation, and basic page templating strategies are covered in this chapter.

Chapter 10, “Forms,” describes how PHP can work with HTML forms to gather, display, and manipulate user input.

Chapter 11, “Databases,” highlights PHP’s vast support for database servers, focusing on the MySQL database to show how PHP can act as an efficient interface between a database and the Web.

Chapter 12, “Templates,” introduces advanced page templating strategies.

Chapter 13, “Cookies and Session Tracking,” shows how PHP can effectively track site visitors.

Part III, “Advanced PHP,” introduces a few of the more advanced implementations of PHP and includes Chapters 14 through 16.

Chapter 14, “PHP and XML,” introduces the reader to XML and shows how PHP can parse and convert XML documents.

Chapter 15, “JavaScript and COM,” illustrates how PHP can work with JavaScript to produce increasingly user-friendly and interactive Web applications. Information regarding how PHP can interact with Windows COM objects is also covered.

Chapter 16, “Security,” describes several of the many facets of Web security and how PHP can be used to implement these features. Advanced PHP configuration, coding issues, data encryption, ecommerce, and user authentication are all topics covered in this chapter.

In an effort to eliminate all possibilities of error in the text and code, I have taken considerable time to verify all facts and code listings. However, as sure as I am human, errors are bound to exist. Should you find a mistake, I would greatly appreciate it if any information regarding the error be sent to book_errata@wjgilmore.com.