

Pro PHP

Patterns, Frameworks,
Testing and More



Kevin McArthur

Pro PHP: Patterns, Frameworks, Testing and More

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Jill—my wife, my muse, and my raison d'être—I write for you.

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About the Author

■ **KEVIN MCARTHUR** is an open source developer, residing in British Columbia, Canada. He is a self-taught entrepreneur and has been running a very successful PHP application development studio for more than eight years. His company, StormTide Digital Studios, has worked with industry in the United States and Canada to provide scaling solutions for web statistics, VoIP, and print automation. An avid IRC user, Kevin helps to administer one of the largest PHP support organizations, PHP EFnet.

Kevin's contributions to open source projects, including the Zend Framework, have made him a well-known authority in the industry. He has written several articles for PHPRiot.com on topics such as reflection, the Standard PHP Library, object-oriented programming, and PostgreSQL.



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JEFFREY SAMBELLS is a graphic designer and self-taught web application developer, best known for his unique ability to merge the visual world of graphics with the mental realm of code. After obtaining his Bachelor of Technology degree in graphic communications management with a minor in multimedia, Jeffrey enjoyed the paper-and-ink printing industry, but he soon realized the world of pixels and code was where his ideas would prosper.

Jeffrey has previously published articles related to print design and has contributed to award-winning graphical and Internet software designs. His latest book, *AdvancED DOM Scripting* (friends of ED, 2007; 1-59059-856-6, <http://advanceddomscripting.com>), was an instant success. In late 2005, Jeffrey became a PHP 4 Zend Certified Engineer. He updated the certification to PHP 5 in September 2006 to become one of the first PHP 5 Zend Certified Engineers! Jeffrey also maintains a blog at <http://jeffreysambells.com>, where he discusses his thoughts and ideas about everything from web development to photography.

Jeffrey currently lives and plays in Ontario, Canada, with his wife Stephanie, his daughter Addison, and their little dog Milo.



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Introduction

Over the past decade, PHP has transformed itself from a set of simple tools for web site development to a full-fledged object-oriented programming (OOP) language. PHP now rivals mainstream languages like Java and C# for web application development, with more and more enterprises turning to it to power their web sites. The reasons for this are clear: PHP has found the right combination of an easy-to-learn language and powerful features.

In this book, you will learn how to make the most of your PHP programming, from a detailed understanding of OOP theory to frameworks and advanced system interoperability.

Who Should Read This Book

This is an advanced book. I have needed to choose carefully which information to include and what readers should be expected to know already. Readers should have a solid understanding of HTTP and PHP—that is, you should understand how to make web pages and build forms, and you should understand key concepts like the HTTP request cycle.

If this doesn't sound like you, I recommend reading *Beginning PHP and PostgreSQL 8* by Jason Gilmore and Robert Treat (Apress, 2006; 1-59059-547-3). It is an excellent introduction to PHP programming and a definite must-read for any would-be developer.

If you are comfortable at the intermediate to advanced level, then this book is for you.

How This Book Is Organized

Each chapter builds on lessons learned in previous chapters, but recognizes that readers will have a wide variety of skill levels. If you think you already know the content covered in a chapter, I encourage you to skip ahead, but before you do, be sure to read the “Just the Facts” section at the end of each chapter. This section provides a terse summary of what was covered in the chapter. But note that even the most seasoned programmers are likely to find something worth learning in each chapter.

The book is organized into five parts:

Part 1, OOP and Patterns: This part provides a foundation for advanced OOP concepts. It dives right in and tells you all you need to know about abstract classes, interfaces, static methods, and patterns like the singleton and factory, as well as exceptions. The part concludes with an introduction to the new features in PHP 6.

Part 2, Testing and Documentation: This part covers all those interesting “peripheral” concepts, like test-driven development and automated deployment. It teaches you about writing great documentation and includes introductions to several documentation standards, including PHPDoc and DocBook. You will find information about the reflection API and learn how to extract metadata from your programs. Finally, you’ll learn about continuous integration and how to use tools like Phing and Xinc to improve your development workflow.

Part 3, The Standard PHP Library (SPL): The SPL contains some of the most advanced PHP code ever written. It offers language support for advanced OOP concepts like indexers and iterators, and also provides structures for exceptions and patterns like observer/reporter. The information in this part will allow you to create much more elegant and well-formed classes than would normally be possible.

Part 4, The Model-View-Controller (MVC) Pattern: MVC is probably the most useful development pattern for PHP developers. It allows you to structure your applications and work in teams using the best resources to get the job done. A strong understanding of this pattern is probably the single most important job qualification for any PHP developer, so this book makes a special effort to fully explain it. This part of the book also introduces you to the Zend Framework, an MVC-based framework embraced by thousands of PHP companies. It starts with a complete walk-through of how to get a framework application up and running, and then presents the core concepts and advanced features of the Zend Framework.

Part 5, Web 2.0: This part covers all the things you need to know about Web 2.0. You will find information about Ajax and JSON, SOAP web services, and SSL client authentication. This part includes a lot of really useful tutorials, based on personal experience.

Contacting the Author

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