

THE EXPERT'S VOICE® IN E-COMMERCE

Pro PayPal E-Commerce

Discover the breadth of payment options that PayPal offers, from basic HTML solutions to the powerful Website Payments Pro and Express Checkout options

Damon Williams

*Foreword by Rajiv Dutta,
President, PayPal*

Apress®

Pro PayPal E-Commerce



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ISBN-13 (pbk): 978-1-59059-750-7

ISBN-10 (pbk): 1-59059-750-8

Printed and bound in the United States of America 9 8 7 6 5 4 3 2 1

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Distributed to the book trade worldwide by Springer-Verlag New York, Inc., 233 Spring Street, 6th Floor, New York, NY 10013. Phone 1-800-SPRINGER, fax 201-348-4505, e-mail orders-ny@springer-sbm.com, or visit <http://www.springeronline.com>.

For information on translations, please contact Apress directly at 2560 Ninth Street, Suite 219, Berkeley, CA 94710. Phone 510-549-5930, fax 510-549-5939, e-mail info@apress.com, or visit <http://www.apress.com>.

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To Mom, Dad, and Nana

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Foreword

This is an exciting time for PayPal. Our business has grown exponentially over the past few years, and we see a tremendous future ahead. PayPal's developer community is an important part of our future and will be instrumental in helping PayPal be the global leader in online payments.

When you build PayPal into a website, you get much more than a payment processing service. Our commitment to providing the most secure payments platform in the world is why we employ a team of experts whose responsibility it is to stay one step ahead of fraudsters. And when problems do arise with a transaction, our dispute resolution tools and our customer support representatives help both buyers and sellers resolve issues in a professional manner.

With thousands of businesses turning to PayPal every week to meet their payment needs, the demand for developers with PayPal expertise grows greater each day. Resources such as *Pro PayPal E-Commerce* will help you make informed decisions when choosing the right payment solution for your or your client's business.

It is developers like you who will have the next brilliant idea for new, creative uses of the PayPal platform. We look forward to partnering with you on innovative, cutting-edge technologies that provide the best user experience for our customers around the world.

Rajiv Dutta
President, PayPal

About the Author



DAMON WILLIAMS has worked at PayPal since 2004, where he has specialized in making life easier for people trying to integrate PayPal into websites and applications. His background includes experience in software engineering, information architecture, community building, and publishing. Before working at PayPal, Damon spent five years as the publisher of *Feedback Magazine* in Austin, Texas, where he also moonlighted as a DJ and promoter. He currently manages PayPal's developer program, where he is building a global community for innovation and support on the PayPal platform. Damon holds a bachelor's degree in electrical engineering from the University of Texas at Austin.

About the Technical Reviewer

■ **MICHAEL BLANTON** is the Senior Manager of Merchant Integration for PayPal Merchant Services and has been with the Merchant Services team for three years. During that time, he's provided technical consulting to partners such as Dell, Apple iTunes, Napster, and Chase Paymentech. He has also presented PayPal integration information at conferences and contributed to numerous open source projects based on Java technology. He has over eight years of experience in e-commerce consulting and over ten years of experience with online payments processing.

Acknowledgments

I would like to thank all of the people I have worked with during my first two years at PayPal. I wish I could list all the names, but the list would be too long and I would still probably leave some people out. Working at PayPal has been a tremendous learning experience, both personally and professionally.

Thank you to the following people for contributing to this book in the form of code, advice, images, support, or guidance: Yannick Bercy, Michael Blanton, Patrick Breitenbach, Dave Burchell, Paulam Chang, Jason Chow, Erin Curran, Matthew Dennison, Chris Hogben, Rachel Kumar, Tom Kutter, Alex Lange, Aaron Lee, Matt Lerner, George Lin, Michael Metzger, Margaret Morris, Laurie Redding, Colin Rule, Todd Sieber, Clarice Soloway, Brian Sparr, Mayumi Stroy, Karen Sweetland, Winston Toy, Vicki Vance, Tim Villanueva, Sam Wu, Harry Xue, and Gray Watson.

Thanks to the PayPal Merchant Technical Support team for your contributions to and continued support of the PayPal Developer Community.

Finally, thanks to everyone out there building websites, applications, and services that work with PayPal. Without you, there would be no need for this book in the first place.

Introduction

Who This Book Is For

This book is primarily for software developers. I assume you have a basic understanding of Internet technologies and programming techniques. Code samples are scattered throughout the text and are provided in numerous languages, so fluency in languages such as Java and PHP will help you get the most value from the book. All the code samples in this book, as well as additional code that isn't included in the text, are provided in the Source Code/Download section of the Apress website at www.apress.com.

If you are a business owner or entrepreneur with little to no programming experience, however, there is still a significant amount of information you can glean from these pages. While a good portion may be too technical for your interest, this book provides details on almost all PayPal technologies, and as such can give you a better sense of the type of work that would need to be done in order to integrate PayPal into your grand schemes, even if you ultimately won't be the one hacking out the code.

How This Book Is Structured

This book consists of nine chapters and an appendix. The sections that follow offer a general overview of the content.

Chapter 1: Introduction to PayPal

Chapter 1 provides background information about PayPal and introduces the notion of PayPal as a platform. Pre-integrated solutions are presented, as well as guidelines for how to choose the best PayPal solution to meet your needs. The context for the rest of the book is set in this introductory chapter.

Chapter 2: The PayPal Account

Chapter 2 takes a look at the PayPal account, a distinction that lies at the core of the PayPal system. It's what makes the connection between your email address and your bank account, and it allows you to configure the payment technologies that PayPal makes available. It's also through your PayPal account that you are able to generate reports that detail the success of your business.

Chapter 3: Basic Website Payments

Chapter 3 begins the inquiry into how PayPal can be used to accept online payments. PayPal's success can largely be attributed to its ease of use, and the options covered in this chapter are the source of that reputation. Later chapters cover more advanced technologies, almost all of which are not as simple to set up and manage as those covered in this chapter.

Chapter 4: Encrypted Website Payments

Chapter 4 takes the notions presented in Chapter 3 and extends them by adding an optional layer of security via public key cryptography. By using the techniques presented in this chapter, you can offer payment options on your website that are impenetrable by hackers and fraudsters.

Chapter 5: Postpayment Processing

Chapter 5 takes a look at what takes place after the transaction is complete. This chapter covers the popular Instant Payment Notification (IPN) and Payment Data Transfer (PDT) technologies, which you can leverage to improve the buyer experience and automate many aspects of your business.

Chapter 6: The PayPal API

Chapter 6 covers the publicly available functionality that PayPal exposes via its API interface. Both the traditional SOAP and the new Name-Value Pair (NVP) interface are covered. The API can be used to accept payments, send payments, and perform administrative duties such as issuing refunds and searching transaction history.

Chapter 7: Payflow Gateway

Chapter 7 covers the Payflow Pro and Payflow Link payment solutions that PayPal acquired with its purchase of the VeriSign Payment Services business in 2005. These gateway services can optionally work with an external processor (other than PayPal), to establish the Internet Merchant Account (IMA) necessary to process credit card transactions.

Chapter 8: Reporting

Chapter 8 presents the array of reporting functionality that PayPal offers. These primarily include the reports provided in the business-reporting portal; for Payflow merchants, this includes the reports provided in PayPal Manager.

Chapter 9: Managing Online Disputes

Chapter 9 discusses best practices for reducing your risk of becoming a victim to fraudulent transactions. This chapter also covers the PayPal Resolution Center, an area on the PayPal website where buyers and sellers can communicate and attempt to resolve disputes amicably.

Appendix: PayPal Reference

The appendix contains reference material that can be used during development to quickly look up the meaning of a particular variable or error code, for instance.

