Beginning Joomla!

From Novice to Professional

Dan Rahmel

Apress®

Beginning Joomla!: From Novice to Professional

Copyright © 2007 by Dan Rahmel

All rights reserved. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage or retrieval system, without the prior written permission of the copyright owner and the publisher.

ISBN-13 (pbk): 978-1-59059-848-1

ISBN-10 (pbk): 1-59059-848-2

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

Trademarked names may appear in this book. Rather than use a trademark symbol with every occurrence of a trademarked name, we use the names only in an editorial fashion and to the benefit of the trademark owner, with no intention of infringement of the trademark.

Lead Editor: Jason Gilmore
Technical Reviewer: Stephen Burge
Editorial Board: Steve Anglin, Ewan Buckingham, Gary Cornell, Jonathan Gennick, Jason Gilmore, Jonathan Hassell, Chris Mills, Matthew Moodie, Jeffrey Pepper, Ben Renow-Clarke, Dominic Shakeshaft, Matt Wade, Tom Welsh
Project Manager: Tracy Brown Collins
Copy Edit Manager: Nicole Flores
Copy Editors: Nicole Flores, Damon Larson, and Marilyn Smith
Assistant Production Director: Kari Brooks-Copony
Production Editor: Katie Stence
Compositor: Linda Weidemann, Wolf Creek Press
Proofreaders: Linda Seifert and Elizabeth Berry
Indexer: Toma Mulligan
Artist: April Milne
Cover Designer: Kurt Krames
Manufacturing Director: Tom Debolski

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 2855 Telegraph Avenue, Suite 600, Berkeley, CA 94705. Phone 510-549-5930, fax 510-549-5939, e-mail `info@apress.com`, or visit `http://www.apress.com`.

The information in this book is distributed on an “as is” basis, without warranty. Although every precaution has been taken in the preparation of this work, neither the author(s) nor Apress shall have any liability to any person or entity with respect to any loss or damage caused or alleged to be caused directly or indirectly by the information contained in this work.

The source code for this book is available to readers at `http://www.apress.com` in the Source Code/Download section.

Contents at a Glance

About the Author xiii
About the Technical Reviewer xv
Acknowledgments xvii

CHAPTER 1 Introduction to Joomla! 1
CHAPTER 2 Quickstart: Setting Up a Joomla! Site in 20 Minutes 13
CHAPTER 3 Installation and Configuration 67
CHAPTER 4 Adding Content 119
CHAPTER 5 Administering Joomla! 161
CHAPTER 6 Creating Your Own Templates 205
CHAPTER 7 Joomla! Extensions 265
CHAPTER 8 Web Community Features 295
CHAPTER 9 Site Statistics 343
CHAPTER 10 Photo Gallery 357
CHAPTER 11 Joomla! E-commerce 389
CHAPTER 12 Search Engine Optimization and Joomla! 415
CHAPTER 13 Creating Extensions 437

INDEX 457

Contents

About the Author xiii
About the Technical Reviewer xv
Acknowledgments xvii

CHAPTER 1 Introduction to Joomla! 1

Content Management System Overview 3
Content Management System Adoption 4
Joomla! Benefits 5
Joomla! Features 6
How Joomla! Works 8
Differences Between Joomla! 1.0 and 1.5 9
Life As One of the 50 Most Important Open Source Projects 10
Conclusion 11

CHAPTER 2 Quickstart: Setting Up a Joomla! Site in 20 Minutes 13

Installing Joomla! 14
Downloading the Joomla! CMS 15
Extracting the Joomla! Files 16
Uploading Files to Your Web Host FTP 17
Preparing Go Daddy for Joomla! 20
Using the Joomla! Installation Wizard 27
Modifying the Joomla! Installation 39
Adding a New Article 40
Editing the Main Menu 45
Removing Modules 49
Unpublishing Whole Menus 50
Changing the Frontpage Logo Graphic 52
Personalizing the Newsflash Text 58
Creating a Custom Poll 61
Modifying the Pill Menu 64
Conclusion 66

CHAPTER 3 Installation and Configuration 67

File and Directory Overview 68
Installing with XAMPP 71
XAMPP Components by Operating System 72
Installing the Individual Servers of WAMP/LAMP/MAMP 78
Installing and Configuring Apache Server 79
Installing and Configuring PHP 88
Installing and Configuring MySQL 93
Setting Up File and Folder Permissions 105
Installing the Joomla! Files 106
Troubleshooting 107
Challenges with Apache Server 107
Challenges with PHP 110
Challenges with MySQL 112
Conclusion 118

CHAPTER 4 Adding Content 119

Planning Your Content 119
Joomla! Sections and Categories 120
Uncategorized or Static Content 123
Documenting Your Organization Plan 123
Reincarnating a Web Site (LoanStaircase) in Joomla! 131
Creating Sections and Categories 132
Deleting the Sample Articles, Categories, and Sections 132
Adding New Categories and Sections 135
Selecting a Text Editor 136
A Tale of Two Editors: TinyMCE and XStandard Lite 137
No Editor 140
Adding Articles 141
Setting the Basic Article Parameters 141
Setting the Advanced Article Parameters 142
Setting the Article Metadata Information 144
Adding an Article to Your Site 145
Adding a Second Article 148

Adding Menus to Point to Content 150
Creating a Direct Menu to the Uncategorized Article. 151
Displaying the Category Menu 153
Installing a New Template 155
Collaborating with Outside Contributors 158
Conclusion 160

CHAPTER 5 Administering Joomla! 161

Presentation Administration. 161
Template Manager. 161
Language Manager 164
Content Administration 166
Article Manager 166
Section and Category Managers 168
Frontpage Manager 168
Media Manager 169
Trash Manager 171
System Administration 171
Control Panel 171
Global Configuration Manager 173
User Manager 177
Menu Manager 182
Extension Manager 186
Module Manager 188
Plugin Manager 190
Mail Manager 191
Mass Mail Manager 193
Global Check-In 194
System Info 195
Backing Up the Joomla! Installation 197
Backing Up Through phpMyAdmin 198
Restoring the Backup 200
Backing Up from MySQL Administrator 200
File Backup 200
Security 202
Writable Directories. 203
Conclusion 203

CHAPTER 6 Creating Your Own Templates 205

Quickstart to Creating a Hello Joomla! Template 207
Creating the Hello Joomla! Template Files 207
Adding a Module and a Component to Hello Joomla! 211
Modifying an Existing Template 213
Creating Templates with Web Editors 217
WYSIWYG Editors 217
Program Editors 223
Creating a Real Template 229
Pieces of the Puzzle: Template Structure 230
Step-by-Step Template Creation 232
Template Installation 261
Template Previews 262
Validating Template Code 263
Conclusion 264

CHAPTER 7 Joomla! Extensions 265

The Difference Between Modules, Components, and Plug-Ins 265
Plug-Ins: The Most Advanced Extensions 266
Components and Modules 267
Module Types 269
Default Site Modules 270
Wrapper (mod_wrapper) 272
Random Image (mod_random_image) 273
Banners Module and Advertisement Module (mod_banners) 274
Breadcrumbs (mod_breadcrumbs) 276
Syndication (mod_syndicate) 277
Feed Display (mod_feed) 278
Main Menu, Key Concepts, User Menu, Example Pages, Top Menu, and Resources Module (mod_mainmenu) 279
Administrator Modules 282
Site Components 283
Banners Component 283
Contacts Component 287
Newsfeeds Component 288
Polls Component 290
Weblinks Component 291
Site Plug-Ins 292
Conclusion 293

CHAPTER 8 Web Community Features 295

A Site Profile 295
Profiling a Site Visitor 296
Looking at Your Community 297
Considering How Much Interaction Your Site Requires 297
Making Your Site a Home for Other Groups 299
Using the Community to Retarget Your Site 299
Joomla! Technology for Building Web Communities 299
Subscribing to Newsfeeds 300
Allowing User Rating of Articles 301
Adding Polls 303
Adding a Guestbook 305
Allowing User Comments 316
Implementing an Event Calendar 324
Creating an Active Forum/Discussion Board 327
Adding a Suggestion Box 337
Using Community Builder 338
Conclusion 342

CHAPTER 9 Site Statistics 343

Web Analytics 343
Parsing Web Logs 344
Page Tagging 345
Standalone Log Analysis Packages 345
Webalizer 346
AWStats 349
Joomla! Extensions 350
Google Analytics 351
Page Tag Code 352
Google Analytics Reports 354
Conclusion 356

CHAPTER 10 Photo Gallery 357

FTP Server for Gallery Management 357
Activating a Linux FTP Server 358
Activating the Mac OS FTP Server 359
Installing FileZilla Server on Windows 360
Easy Gallery 361
Downloading and Installing Easy Gallery 363
Configuring Easy Gallery 364
Managing Easy Gallery 366
Creating a Menu for the Component 367
Easy Gallery Front-End 369
Gallery2 370
Downloading and Installing Gallery2 372
Configuring Gallery2 375
Using Gallery2 from Within Joomla 382
Installing Gallery2 Bridge 382
Other Gallery2 Plug-Ins 386
Conclusion 386

CHAPTER 11 Joomla! E-commerce 389

VirtueMart: The Joomla! Store 389
System Requirements 390
Download Options 391
Creating a Virtual Store 393
VirtueMart Control Panel 393
Tax Configuration 394
Global Configuration 395
Configuring the Store 397
Creating Categories 398
Creating Products 400
VirtueMart and Secure Sockets Layer 405
Payment Options 407
Shopper Groups and User Management 410
Managing Manufacturers/Brands 411
Shipping Module 411
Order Management 412
Conclusion 413

CHAPTER 12 Search Engine Optimization and Joomla! 415

SEO on a Joomla! Site 415
Configuring Joomla! to Be Search Engine–Friendly 416
Using Titles, Meta Descriptions, and Keywords 422
Sitemaps 423
Breadcrumbs 424
Creating an SEF Joomla! Template 426
General Techniques 429
Problems of JavaScript, Flash, and Ajax 429
HTML-to-Text Ratio 430
Spidering Your Own Site 430
Checking Page Rank 431
Keyword-Rich Content 432
Preventing Content Listing 432
Linking Strategy 433
Avoid Keyword Spamming 434
Conclusion 435

CHAPTER 13 Creating Extensions 437

Writing a Front-End Module 437
Structure of the Module 438
The mod_hellofrom XML Descriptor File 439
The PHP Code File 440
Writing a Missing Metadata Administrator Module 442
Creating the XML Descriptor 443
Creating the Module File 444
Structure of the Suggestion Box Component 448
The XML Descriptor File 449
The PHP Code File 450
Installing the Component 453
Conclusion 454

INDEX 457

About the Author

DAN RAHMEL is an author best known for his work relating to database servers, PHP, and Visual Basic. He has more than 14 years of experience designing and implementing information systems and deploying midsize client/server solutions using MySQL, Microsoft SQL Server, Microsoft Access, and Visual FoxPro. Dan began work as a writer for various magazines including *DBMS*, *American Programmer*, and *Internet Advisor*.

Author of over a dozen books, his writing has been translated into Chinese, Japanese, Spanish, French, and Portuguese. In 2006, Focal Press issued a special edition of *Nuts and Bolts Filmmaking* for release in India.

About the Technical Reviewer

STEVE BURGE is the CEO of Alledia (`www.alledia.com`), one of the leading Joomla development companies in the world. He is the author of the Joomla SEO eBook and writes a daily blog about Joomla and search engine optimization at a `www.alledia.com/blog`. Originally from the United Kingdom, he now lives and works close to Atlanta, Georgia.

Acknowledgments

It was a pleasure to work with the people at Apress on this book. The superior Apress staff often made the difficult seem easy. I'd like to thank Jason Gilmore for believing in the book from the start and shepherding it down the long, hard road to publication. Tracy Brown Collins, who lives in a distant land, thanks for all your help and the small e-mails of encouragement. I'd also like to thank Damon Larson, Marilyn Smith, Katie Stence, and all the others who had to work tirelessly in production and editing to produce this book.

I must thank the twin stars of my life—my wife, Elizabeth, and my daughter, Alexandra—for their untiring patience as I crafted this book. Elizabeth put up with all the late nights and lost weekends with seldom a complaint. Meeting her was the best thing that ever happened to me and I am eternally grateful that serendipity introduced me to my better half.

I'd like to thank my siblings (David and Darlene) and friends (David Rahmel, Greg Mickey, John Taylor, Juan Leonffu, Ed Gildred, and Weld O'Connor) for their unconditional support. I'm very grateful to Sandra Villagran who kept the munchkin at bay and happy while I focused on the writing.

The Joomla! development team deserves all of our highest praise. They work tirelessly with small thanks and smaller remuneration to create the most fantastic open source application in the world. We all benefit from their generosity.

Most of all, I'd like to thank you, the reader. By buying this book, you make it possible for all of us in the publishing industry to labor to produce good work. I hope the information in this book will play a part in helping you achieve your dreams. Thanks.

CHAPTER 1

Introduction to Joomla!

I'm more excited about Joomla than any other web product I've seen in years. Joomla exploded onto the web scene in 2005 and drastically simplified web design, development, deployment, and maintenance. It's also done its fair share to beautify the web world. By using Joomla, you can instantly banish ugly, poorly structured interfaces from your web sites—even the default installation shown in Figure 1-1 shows how pleasing a Joomla web site can look. Adding content or updating the design of your entire web site is a snap . . . and that's just for openers!

This book will guide you through nearly every aspect of the Joomla system, from basic deployment to writing your own extensions. By the time you've reached the last page, you'll be able to make Joomla do almost anything that a manually designed web site can do—and in a fraction of the time. Before we get started, let's take a quick glance at what makes Joomla such as revolutionary technology. The sections that follow describe the advantages of using a content management system (CMS) like Joomla, in addition to the features and benefits that make Joomla a compelling choice.

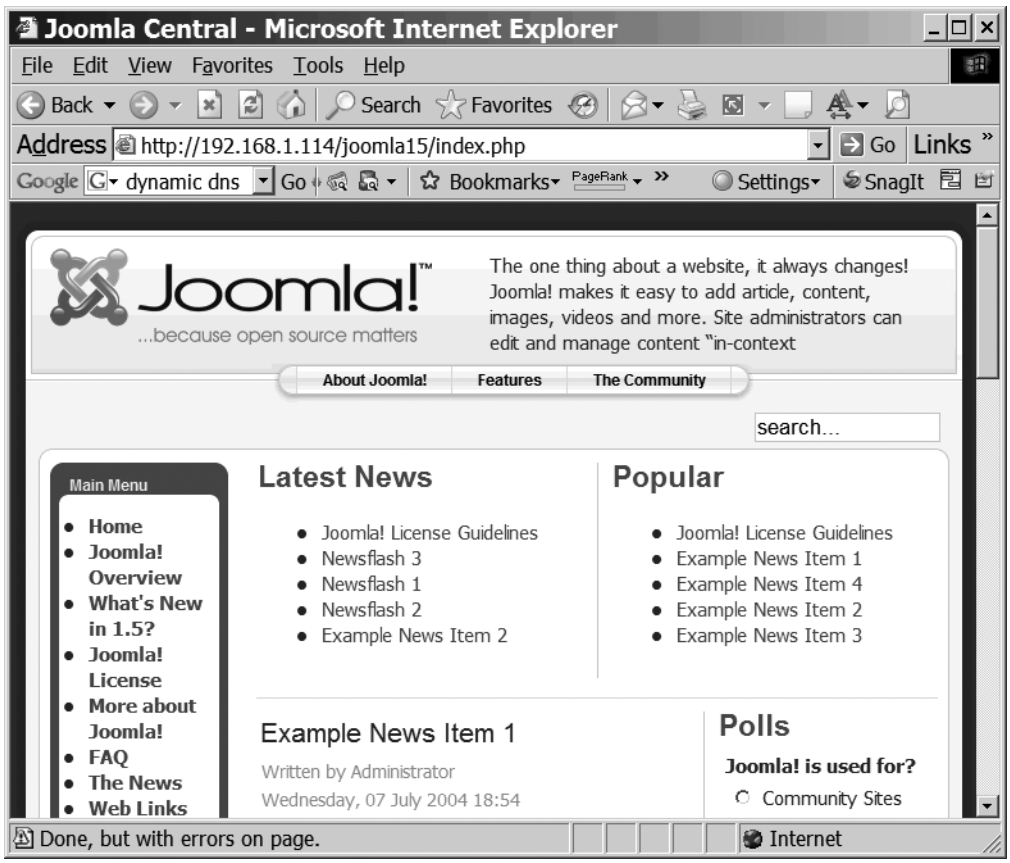

Figure 1-1. *The home page of a default Joomla installation*

THE HISTORY OF MAMBO AND THE BIRTH OF JOOMLA!

Although Joomla debuted in 2005 as version 1.0, its roots stretch back to 2001 when the open source content management system (CMS) named Mambo was first released. Mambo began life as an internal CMS product created by engineers at the Miro Corporation of Australia. In April 2001, Mambo was initially released to the open source community. For its time, Mambo was an amazingly advanced CMS application to be freely available with full source code.

Mambo gained worldwide popularity and spawned a cottage industry of vendors selling plug-ins and templates. The developer community flourished in an environment where people could freely share ideas and source code. Mambo was well on its way to becoming the most popular open source CMS application.

Yet in 2005 there was a substantial disagreement between the open source developers of Mambo and the nonprofit foundation that had been created to guide Mambo development. Finally in August 2005, the Mambo development staff abandoned the Mambo project and began toiling to create a new CMS from the ashes of the old.

A short time later, Joomla 1.0 was released. While this new CMS was fundamentally compatible with most aspects of Mambo, the user interface and site management had been streamlined. The problems with the Mambo foundation caused the open source community to shun that product and throw all their weight behind Joomla development.

In the short time since Joomla was born, use and development of the CMS has exploded. Within its first year of release, Joomla was downloaded more than 2.5 million times. At the time of this writing, there are over 65,000 registered Joomla developers, and there are countless web sites deployed with Joomla. Even more amazing is the international embrace of Joomla. The Joomla CMS has been adopted by webmasters from Brazil to the Netherlands, from the United States to Italy, and from Australia to China.

Content Management System Overview

When the World Wide Web was born, creating even the simplest web page required learning the language of the Web: HTML. Since then, great strides in the power of web authoring software have been made with the availability of professional web editors such as Adobe Dreamweaver and Microsoft FrontPage. These types of editors have made the creation and maintenance of a web site much easier by providing a graphical user interface for web construction and minimizing the amount of HTML coding required by the webmaster.

Despite these advances, when a web site grows beyond a few simple pages, even these advanced editors begin to crack under the pressure. Maintaining a web feature as simple as a site map can quickly become a tedious affair, swallowing webmasters' time and energy with every update. Other routine tasks, such as monitoring broken links, implementing a menu system, and adding a user forum, can make web site deployment a full-time job. Then there are broader challenges, such as ensuring that new content has a look and feel consistent with the rest of the site and providing web visitors a site search option.

To solve these problems, large media publishers (e.g., TIME and Newsweek) turned to a special type of software called a *content management system* (CMS). The CMS application not only automated site content management, but also allowed nontechnical writers and journalists to contribute articles directly into the system via a custom user interface. This type of interface required no knowledge of HTML or other technical skills, minimizing the potential for problems or inconsistencies to be introduced into the publishing process.

With the implementation of a CMS, most of the headaches of site management disappear. Features such as a site map and a site search will automatically update without the need for custom programming. Additional features such as forums, shopping carts, and picture galleries are either built in to the software or widely available as plug-ins. All

of this serves to minimize the amount of custom development (and the substantial number of bugs and security concerns that go with it) required for more traditional web site deployment.

For web designers, the core of CMS site presentation rests on visual templates that can be set for the entire site or even associated with individual pages. These templates determine the visual representation of content to the user. When a remote author adds a new article to a web site, for example, the item is instantly published with a standardized site template, ensuring that the entire site retains the same look and feel or theme.

For large corporations, CMS use grew dramatically in the 1990s. But with deployment costs running into the hundreds of thousands of dollars, this technology remained out of reach of smaller organizations and individual users. Even if the cost wasn't prohibitive, the professional systems generally had complicated "everything and the kitchen sink" management interfaces that would allow a large organization to maintain control over thousands of articles and hundreds of users. Simple maintenance required an expert's knowledge of the CMS application.

Enter Joomla. Not only is Joomla free, but it also has one of the most easy-to-use interfaces of any CMS. Almost anyone can download, install, and have Joomla up and running on a web server in 20 minutes or less. When people in the technology community discuss the second generation of Internet-based services commonly referred to as Web 2.0, Joomla is one application that makes this new web world not only possible, but appealing as well.

Content Management System Adoption

So why hasn't everyone switched to a Joomla already? There are several answers to that question, with the first and most likely response being inertia. When people become accustomed to a way of doing things—no matter how antiquated—they are often loathe to switch. Climbing the mountain of web development from HTML to advanced web application design takes years and a great deal of work. It can be almost painful to minimize those hard-won skills with an automated solution.

Another factor slowing the move to a CMS solution is the existing hundreds of web pages that will need to be converted from their raw HTML format. For a substantial web site, content migration can pose a daunting challenge. Needless to say, the initial time investment porting to a CMS will pay for itself many times over in maintenance time-savings in the future.

The only real technical barrier to moving to a CMS is the requirement that the web host provide support for dynamic content in the form of PHP and MySQL hosting. Five years ago, there weren't many service providers who offered this option, but times have

changed dramatically for the better. Now web hosting from companies such as Go Daddy (`www.godaddy.com`) and SiteGround (`www.siteground.com`) provide inexpensive access to servers that can run CMS technology without breaking a sweat.

Joomla! Benefits

With numerous CMS programs available, it's interesting to note that Joomla alone has been embraced by a wide spectrum of individuals, corporations, nonprofit organizations, boutique businesses, and public organizations.

One reason for Joomla's wide adoption is its ease of use. If you have any experience with web site construction or CMS design, you can use Joomla once and understand why people and businesses have adopted it in such large numbers.

Joomla's ease of use is matched only by its built-in professional features. In addition to Joomla's robust native feature set, over 200 free and commercial plug-ins are available to use with it. This vast array of extensions makes it possible to deploy a Joomla system that can do almost anything you need, from chat rooms, to online auctions, to classified ads, to inventory management.

Despite the gold-medal capabilities of the system, however, I think the primary reason Joomla is so popular is the award-winning user interface aesthetics the application offers to even the most novice users. The professionally designed user interface templates, both those included with the default installation and those available from the large third-party market, can instantly make almost any web site a "sight to behold." Gone are the days when a web site required a dedicated professional web designer to look immaculate. Joomla allows the most humble blog site to stand toe to toe with a multimillion-dollar web site without blinking. That means a professional web presence is available to site creators with no graphic arts experience. The aesthetics of a Joomla site are unparalleled by any other system.

Further, many CMS systems nearly require an advanced degree to set up and maintain. Joomla, in contrast, enables you to perform all maintenance tasks through a simple and elegant administration screen (see Figure 1-2). Since Joomla administration is web based, a Joomla site can be managed from wherever you happen to be—even if you're resting comfortably on a beach in Maui with a piña colada in one hand and laptop with a Wi-Fi connection in the other.

In the sections that follow, you'll be introduced to various Joomla features and learn, in a nutshell, how the application works.

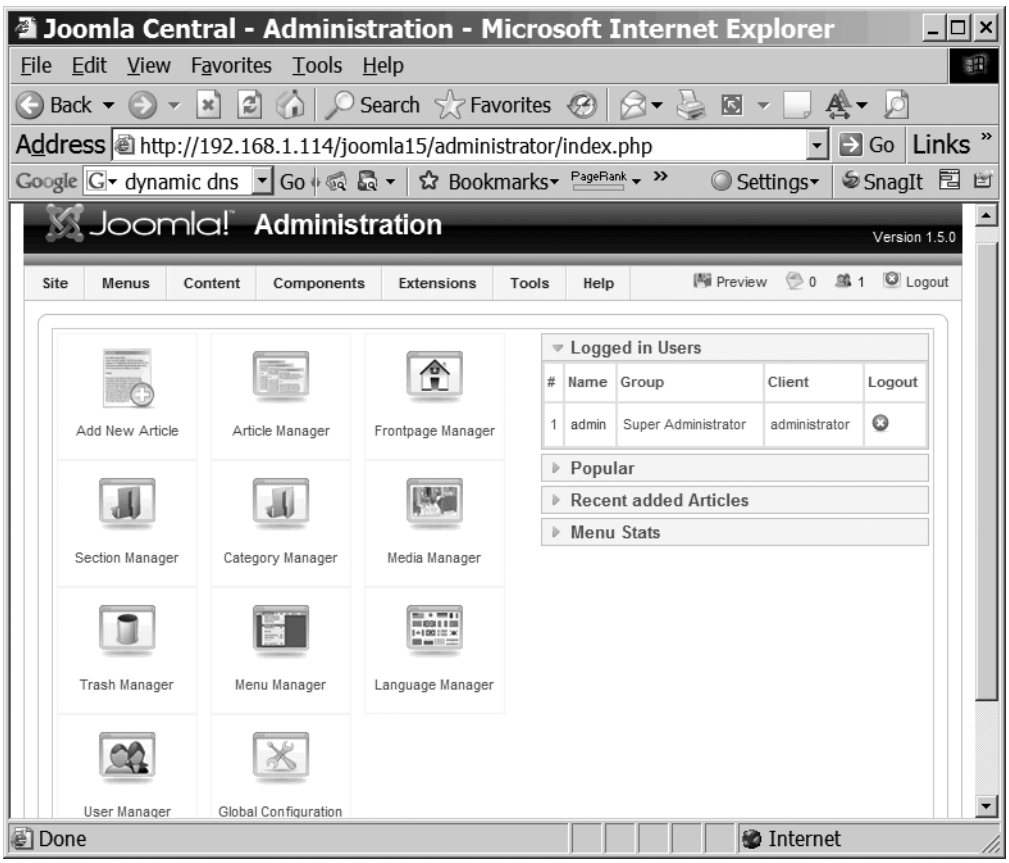

Figure 1-2. *Joomla administration is completely web based and straightforward.*

Joomla! Features

The power and simplicity of the Joomla application may be difficult to understand if you don't have previous experience with a CMS. However, any webmaster can see that the included administrative features are compelling:

- Complete management possible via a robust web interface
- Web-based management of site assets such as graphics, files, and other media
- Content approval features allow moderating of remote author postings
- Hierarchical user group management

- Automated menu management
- Content publication scheduling for automatic publishing and deletion of articles
- User security and contact management

Even more impressive is Joomla's ability to handle content and provide interaction with site visitors. Joomla's content capabilities include the following:

- Multiple built-in "What You See Is What You Get" (WYSIWYG) editors
- Automatic full text search of site content
- Full support for newsfeeds in RSS or Atom format
- Built-in user polling
- Banner advertising management
- Plug-ins for e-commerce solutions, including shopping cart, picture gallery, inventory management, and point of sale
- Multilingual internationalization features
- Accessibility options for the disabled

Finally, Joomla offers a good number of system advantages, including the following:

- Full open source license with free download of the application and source code
- Availability on all major operating systems (Windows, Mac OS, Linux)
- Page caching for improved performance

The robust plug-in architecture has made adding missing features affordable in terms of both time and money. Joomla is completely open source, so you can make desired changes to the system, and you can also contribute your work to the Joomla community if you want. This sort of community contribution often pays dividends later as other users build on your improvement and post back their own enhancements.

Now that you understand the reasons to adopt Joomla for your web site needs, let's take a look at how Joomla works.

How Joomla! Works

A CMS is a fair bit more complicated than a simple web server, but you will need to know only the basics to use Joomla effectively. If you understand the general process that Joomla uses to retrieve content, format it, and return it to the requesting web browser, you will be able to see how you can configure the Joomla system to present content in a manner that best suits your needs.

Figure 1-3 presents a block diagram of a simple web server. Interaction begins when a web browser requests a page of the web server. The web server retrieves the HTML code from the requested static HTML file (e.g., `http://www.example.com/index.html`) and returns it to the browser. The HTML file is called a *static* web page because the page returned to the browser is exactly the content contained in the file stored on the server—nothing more, nothing less. That's about as simple as it gets.

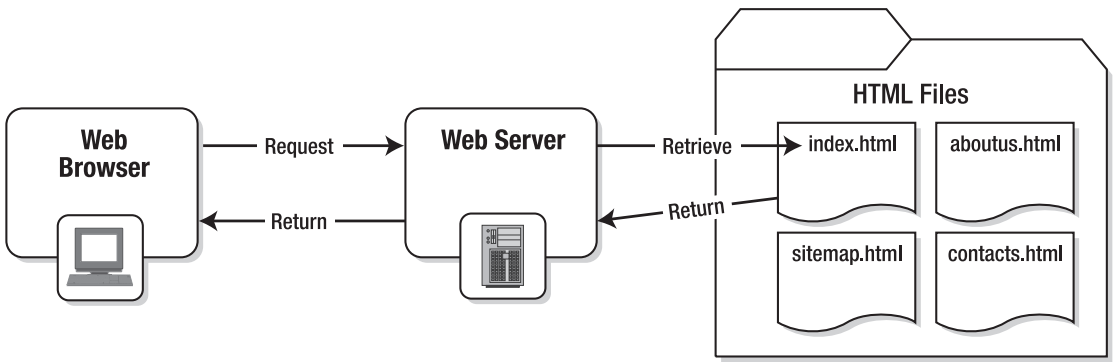

Figure 1-3. *Serving process of a basic web server*

Now let's take a look at the process executed by a request to the Joomla CMS, as shown in Figure 1-4. The web browser requests a page (e.g., `http://www.example.com/index.php`) of the web server. Although the address of the page requested in the browser's address bar may appear similar to the request for a simple HTML page, it actually activates a whole processing system. The request causes a part of Joomla to load into the web server and begin executing on the server's PHP engine. Joomla analyzes the request to determine what content is requested, and then the Joomla system opens a connection to a database server and requests the specified article from the database.

Once the article contents are retrieved, Joomla formats the article using the style selected as the user template. Joomla creates the HTML display content and sends it back to the browser, where it appears to the user in the same form as if a static HTML file was retrieved.

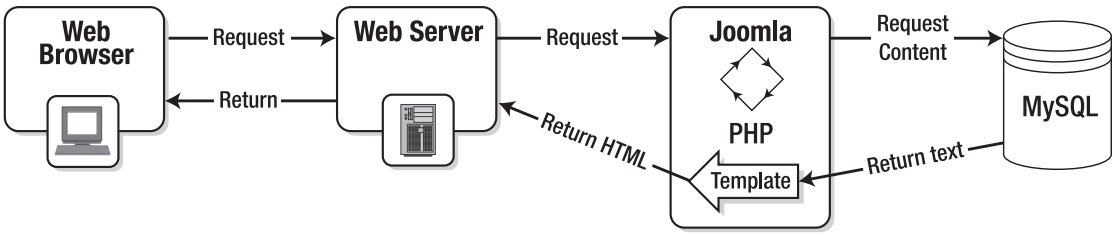

Figure 1-4. *Serving process of the Joomla CMS*

A CMS will dynamically feed content that has been retrieved from a database and formatted through one of the site templates to the web browser. Because the article content is stored as data, the presentation can be changed by simply altering the Joomla template. If you want an entirely new look for your web site, you can select a different template, and instantly a visitor to your site would see the original content in a completely new presentation style.

Differences Between Joomla! 1.0 and 1.5

As explained earlier in the sidebar titled "The History of Mambo and the Birth of Joomla," Joomla has roots in the Mambo open source CMS. Joomla's first version (1.0) departed from Mambo primarily in the user interface. Joomla and Mambo's shared lineage was apparent from their structural similarities to their complete mutual compatibility of modules, components, and plug-ins.

It really wasn't until the significant upgrade to version 1.5 that Joomla came into its own. If you've used Joomla version 1.0, the update will be like a breath of fresh air. There is a new administrative interface, and complex project deployment has been simplified. If you plan to program Joomla, the 1.5 update is a revolution. The new Joomla source code implementation loads painlessly into a standard HTML editor such as Dreamweaver or FrontPage (something that was never simple with the original PHP coding).

Some of the changes in the upgraded version include the following:

- Completely revamped Administration interface
- Improved template preview
- New plug-in manager
- Multi-CSS file editing

- Full support for Atom 1.0 and RSS 2.0 feeds
- Improved accessibility options
- Increased focus on internationalization, including full UTF-8 support, RTL support, and translation using INI files
- Native LDAP support
- XML-RPC support
- A streamlined component call interface that allows easy implementation of Ajax applications
- Completely overhauled Joomla programming framework

Because many readers have likely used previous versions of Joomla, I've included notes throughout the book where important differences exist. If you've never used Joomla before, you can ignore the notes specifying the version differences. Given Joomla 1.0's widespread adoption, utilities that aid in the transition to the new version have already begun to appear, and it's unlikely that you'll have to manage a previous installation.

Life As One of the 50 Most Important Open Source Projects

Joomla has won a vast number of awards and continues to rack them up. At the time of this writing, Joomla just won the Best Linux Open Source Project award at UK Linux and Open Source Awards for the second year in a row. In 2006, Joomla was selected as one of the 50 most important open source projects in the world at the Desktop Linux Summit. Since receiving that honorable designation, Joomla has continued to expand in breadth of deployment and depth of features. Joomla's features make it likely to remain the dominant open source CMS in the future.

And all this for free! Joomla can do most anything you want to do with it. If you want to do a quick and easy setup, no problem. If you want to do advanced development of a custom extension, the resources available to you are astounding. Whether you need to deploy an e-commerce store or write a daily blog, Joomla should be able to fit your needs.

Conclusion

If you didn't understand the utility and power of using a CMS application before you began reading this chapter, I hope you now agree with me that manually constructing a web site is a distant second-place finisher when it comes to site capabilities and maintainability. Joomla has the power and flexibility to serve the needs of almost any individual or organization. Deployment has never been easier, and you can't beat Joomla's price tag: free!

The best way to experience Joomla is to dive in feet first. With that in mind, the next chapter will take you on a "Quickstart" tour. The Quickstart will guide you through installation, configuration, and deployment of a basic Joomla site. So fire up your computer and begin taking advantage of the software that will make your web site as powerful as it is attractive.

CHAPTER 2

Quickstart: Setting Up a Joomla! Site in 20 Minutes

Joomla installation can be a tricky process, because it leverages the operating system's security functions as well as three independently developed server systems: web server, code execution engine (PHP), and MySQL. Running into at least one problem during installation is more likely than not.

For this reason, I've tried to include as many screen shots as possible in this Quickstart chapter, so you can see what's going on at each step of the process. If you encounter a problem, please take a deep breath and don't worry—you won't be left to your own devices. If you can't find the solution to your problem in the "Troubleshooting" section of the next chapter, you can turn to the thousands of people on the Joomla forums (`http://forum.joomla.org`) for help. It's been my experience that if you do so, you'll receive a quick and clear answer.

The figures included here are mostly from an installation performed on the Windows platform. Joomla is cross-platform, however, so regardless of whether your final deployment server runs Windows, you can execute design and development experiments on a different operating system.

Let's jump right in!

Note You have several ways to install Joomla. I chose to outline the manual approach in this chapter because it applies to the greatest number of users. However, your web hosting provider may have a custom installer available through a control panel or cPanel utility that executes the installation via a script like those available from Fantastico (`http://netenberg.com/fantastico.php`). If you choose that route of installation, make sure the Joomla version available matches the most current version on the Joomla site. Also, you can use Joomla Stand Alone Server (JSAS; `http://jsas.joomlasolutions.com`) if you want a turnkey installation for all the required servers.

Installing Joomla!

Before you begin, make certain that your web host can handle the Joomla system. The minimum system requirements are as follows:

- Apache 1.13 or above
- PHP 4.2 or above
- MySQL 3.23 or above

Almost all web hosts that support these technologies will have more advanced versions than the minimums just listed. Nonetheless, if your host provides at least the bare minimum requirements, most likely you will be able to install Joomla.

Don't spend too much time trying to track down the version numbers, as web hosting providers are notorious for not documenting these sorts of things. If you run into problems with the installation, checking version numbers may put you on the right track toward resolving your problem.

■ **Caution** The PHP installation must also include support for MySQL, XML, and zlib (these are additional modules outside the vanilla PHP installation). In most cases, you won't be able to find whether these modules have been installed on the support section of your web host. If the host complies with the other requirements, you're probably best just trying a Joomla installation. The installer performs a preinstallation check and will let you know if these capabilities are missing.

Modern web browsers will have no trouble viewing either the user front-end or the Administrator interface of Joomla. Any version of Internet Explorer after 5.5 will work fine. All versions of Mozilla Firefox and Apple Safari will display a Joomla site properly. For viewing the default front page of Joomla, a web visitor will not need JavaScript enabled, although many of the Joomla plug-ins use JavaScript to improve user interaction. The Administrator interface requires JavaScript, however, so be sure to have it enabled before you begin the installation.

The examples in this chapter are demonstrated using a web server running on Linux and a Windows XP desktop machine for browser and FTP access. If your configuration is different from this one, you should still be able to follow the instructions, even if the graphical user interfaces don't match exactly. Once Joomla is installed and running, nearly all interaction will take place through the Joomla web interface, which should look identical on most platforms.

Downloading the Joomla! CMS

To begin, you'll need to download the Joomla archive with the *most current stable release*. When I tried to download Joomla for the first time, I was confused by all the files that appeared in the download list. The Joomla development team frequently releases patches to eliminate bugs or mend possible security holes. Therefore, the files that head the list on the Joomla web site tend to be the newest patches. Since you're doing a new installation, you need a complete installation of a stable release.

To start, go to the Joomla web site at `www.joomla.org` and click the Download link as shown in Figure 2-1. This will take you to the list of available download files.

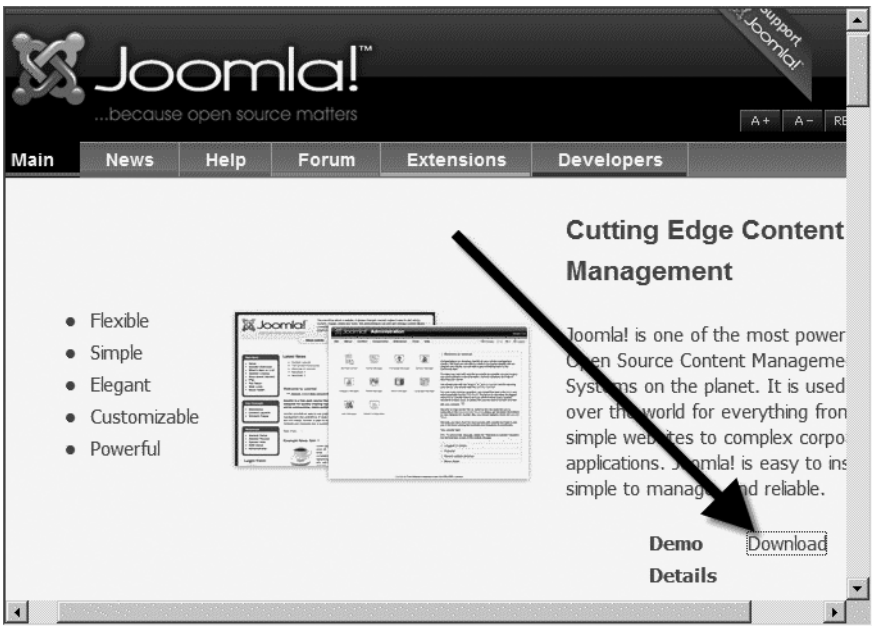

Figure 2-1. *Click the Download link to access the Joomla file library.*

Look through the list until you locate a file titled something like the following, where `VVV` is the current version:

```
Joomla_VVV-Stable-Full_Package.zip
```

Figure 2-2 shows the Joomla download page and the list of files available. Since Joomla releases new versions frequently, it's a certainty that the version numbers on the files listed in the figure will not match the ones you see on your screen. You need to select the newest complete package (labeled "stable" or "full") equal to or greater than version 1.5.

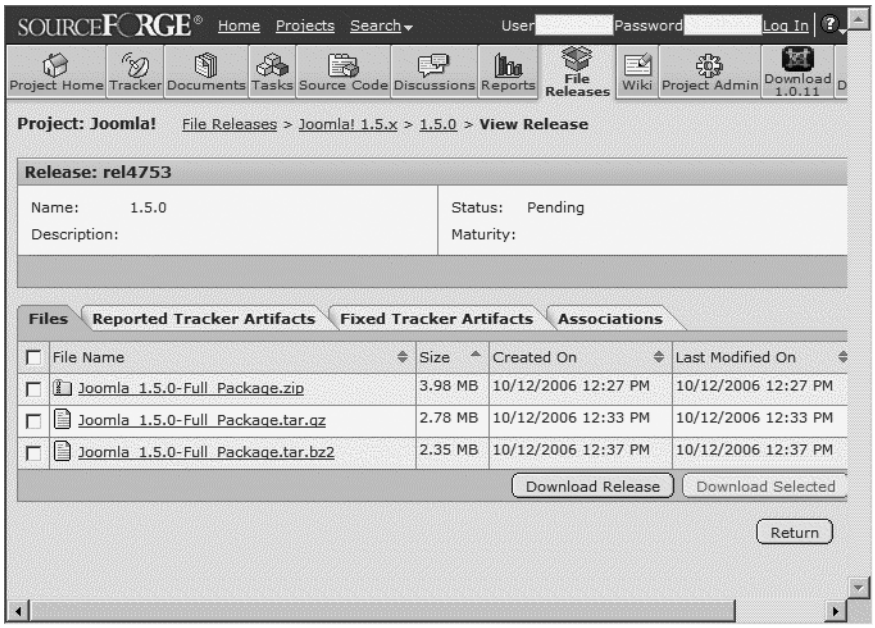

Figure 2-2. *Find the latest full or stable package on the Joomla download site.*

If you don't see the stable full package on the first page, you'll find multiple pages and navigation arrows at the bottom of the list. The first time I downloaded Joomla, I had to go to page 8 of 8 to find the full archive!

If you're running on a Linux platform, you'll probably want to download one of the tarball archives (`.tar.gz` or `.tar.bz2`) instead of the ZIP file to perform the installation. There should be no difference between the actual files contained in the different archives—only a different method used to collect and compress the files.

Click the desired Joomla link and save the file to your local drive.

Extracting the Joomla! Files

Once the package file has been saved to your local drive, you will need to extract the installation files from the archive before you can upload them to the web server. If you're running Windows XP or later, you can simply double-click the ZIP archive to open it. If you're running an older version of Windows, you'll have to download one of the numerous popular ZIP applications, such as WinZip or 7-Zip, from the Web in order to open the archive.

In Figure 2-3, you'll see that I've opened the file. While the files in your archive probably won't exactly match those shown in the figure, the folders and number of files should be similar. To extract them to your local drive, simply drag and drop them to the folder where they will be stored.

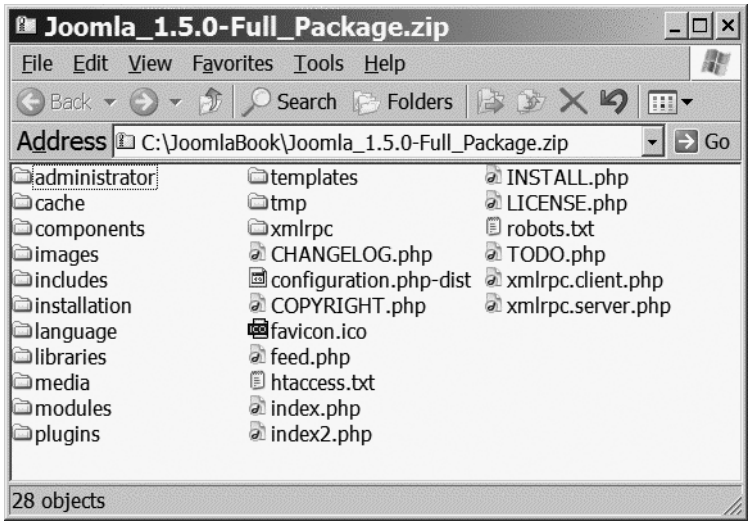

Figure 2-3. *The opened archive shows all of the Joomla files and folders.*

I created a folder called `\Joomla1_5install` and extracted all of the Joomla files and folders into it. What you name this folder isn't important as long as you remember its location on your hard drive. In the next step, you'll use FTP to copy the files to your web server.

Uploading Files to Your Web Host FTP

Most FTP programs are very similar because FTP applications are specialty transfer utilities that serve one function and do it very well. If you have FTP software that you are already accustomed to using, please continue using that software here, as you should be able to easily adapt these instructions to your situation. If you don't have a preferred FTP program, I recommend downloading FileZilla from `http://filezilla.sourceforge.net`.

FileZilla is a full-featured, free, open source, multiplatform (Windows, Linux, Mac OS X, and Mac OS 9) FTP client. I use FileZilla here to demonstrate the Joomla upload. These general steps should parallel the process you'll use for most FTP applications.

■ **Note** There is also a free FileZilla FTP server available at the FileZilla web site if you would like to run an FTP server. If you will be running the web server that's hosting Joomla, you can install the FTP server to allow yourself or others to access files through an FTP program.

When you have FileZilla installed, execute it (or open your current FTP application). To access your FTP server, you can either put the parameters for your FTP site into the Quickconnect fields at the top of the screen or click the Site Manager icon (see Figure 2-4) to create a new site. I recommend creating a site entry because you will probably be editing some of the Joomla files and uploading them in the future.

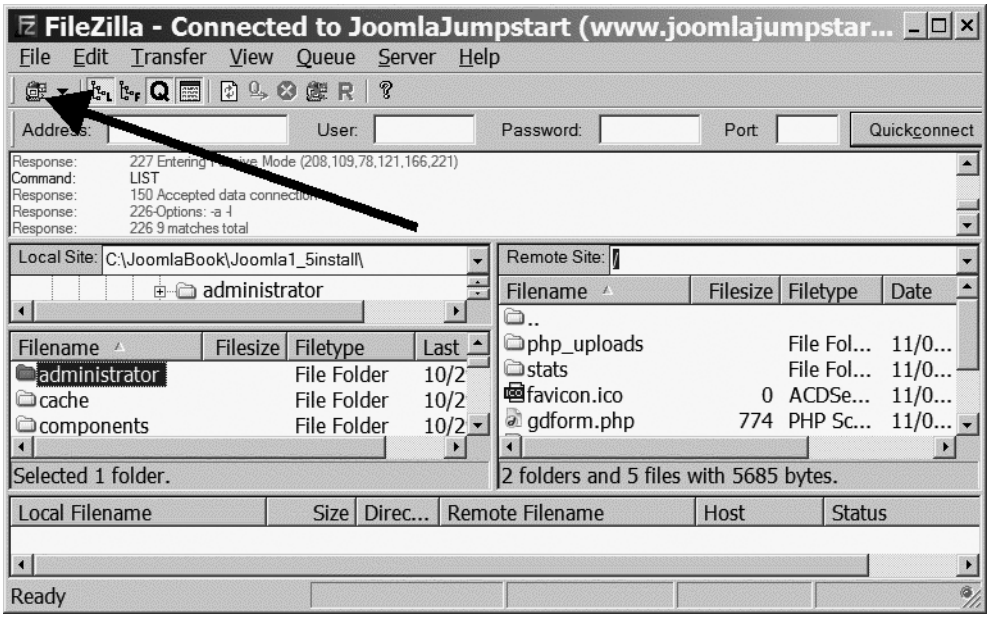

Figure 2-4. *Click the Site Manager icon to create a new site.*

For the host, enter the address of your FTP server (likely it will be something like `ftp.example.com`). The standard FTP port is 21; that will work for most users. If you have problems connecting, check your firewall settings to make sure port 21 isn't blocked.

For logontype select Normal so FileZilla will send the username and password. Enter the username and password for the FTP server. Note that some web providers supply a different username/password for their FTP sites than their main web logins. Be sure to check the support area of your web provider's site for information on FTP configuration.

■ **Note** If your web host is Go Daddy, the FTP address that goes in the Host field in FileZilla will be the core of the URL from your web site (e.g., `www.example.com`) instead of an address that starts with `ftp`. Also, your FTP login will be the same username and password that you selected when you initially created the Go Daddy site.