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DotNetNuke® 5

User's Guide

Get Your Website Up and Running



Christopher J. Hammond and Patrick Renner
Foreword by Shaun Walker - Wrox DotNetNuke Series Editor



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DotNetNuke® 5 User's Guide

Get Your Website Up and Running

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Christopher Hammond
Patrick Renner



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I dedicate this book to my beautiful wife Natalie. Without her support, I wouldn't have the passion for DotNetNuke that allows me to enjoy my work every day.

— Christopher Hammond

For my family — Lauren, Rick, Shelley, Kate, Mike, Sallie, Christine, Scott, and Sunny.

— Patrick Renner

About the Authors

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— *Christopher Hammond*

I would like to thank my wife for her love and support, acting interested in my regular use of acronyms, and for not taking offense when I focus more on my computer screen than on her. I would also like to thank my family for encouraging me to rise to the challenges that I meet. Thanks to my coworkers at Engage for listening as I think out loud and volunteering ideas and solutions. Last, thanks to my coauthor, Chris, for challenging me to think critically and apply the powerful features of DotNetNuke simply and practically.

— *Patrick Renner*

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Foreword

Do you need a website? This question is as old as the World Wide Web itself and as the Internet has evolved to become an integral part of our everyday lives, websites have become critical requirements for almost every significant initiative we undertake today. Whether you have a product or service to promote, a social group you want to interact with on a continuous basis, or just a personal philosophy or stream of consciousness you wish to share with others, websites provide you with a virtual space which is highly available and accessible by people around the world.

Reducing the justifications for a website down to a few simple items may help make the benefits more obvious . . . People will look for you online. Sooner or later, someone is going to type your name or organization into a search engine and it will be highly beneficial if they are able to find you. Websites are inexpensive. The cost of domain names, web hosting, and web publishing software makes a website a very economical, yet valuable, investment. Websites are great advertising. No other medium has the potential to reach so many consumers for so little cost. A website is a worldwide presence. On the Internet, it doesn't matter whether someone is next door to you or on the other side of the world, they can view your website just the same as anyone else. Your website can generate revenue. E-commerce has minimal overhead and there are a multitude of ways to make money online. Your website can save you time. Distributing information through traditional channels takes time and effort but since everything online is digital, the delivery is simple and instantaneous.

Perhaps you already have a website? If so, how often are you updating it? If the answer is "not very often", you very likely have an out of date website which is causing you more harm than good. Not only will visitors notice the stale content and lack of activity, they may judge "the book by its cover" which could result in damage to your reputation as well as reduced confidence in your products and services. Driving visitors and potential customers away from your website is only part of the problem; your overall search engine rankings will also go down as Google and other search engines will index your site less regularly. In light of these issues, it's actually better to have no website at all than to have one that makes you look bad.

So what is the key to maintaining a healthy website? Well, creating and updating a website has traditionally been a complicated task. In the past you may have needed to pay an expensive web designer to publish your content changes to your website. Or, if you worked in a large organization, you may have needed to route all of your changes through the IT Department or internal Web Master who was responsible for updating web properties. Regardless, the overall process was cumbersome, which often resulted in the website being neglected for long periods of time, reducing its effectiveness.

However, things have changed dramatically in the past decade. The task of creating and maintaining a web site has become much simpler and you no longer need to be computer savvy or highly technical to get online. The innovation which has removed much of the early complexity of building websites is the emergence of low cost, highly functional software applications known as Web Content Management Systems (or WCMS).

Web Content Management Systems provide administrative tools through a standard web browser interface, eliminating the need for users to install or update sophisticated software on their desktop systems.

Foreword

The administrative tools are simple and easy to use and allow users to make immediate changes to the content of their website anytime, anywhere. Advanced permissions are usually available as well that allow you to designate specific portions of the site for administration by specific groups of users and not others. WCMs typically use a templating system which provides standardization in the website appearance and helps keep the content properly separated from the visual characteristics and graphics. Many WCMs also offer tools to manage search engine optimization to help make your site more discoverable by consumers. WCMs are generally quite economical which make them highly accessible to individuals and organizations of all sizes.

DotNetNuke® is a full-featured Web Content Management System for the Microsoft Windows platform. It is built upon a secure, extensible, high performance web application framework focused on addressing the broadest set of online business requirements and most innovative web trends. DotNetNuke® is an open source solution and is currently available in two editions: a free unsupported Community Edition, and a more feature-rich Professional Edition with commercial technical support provided by DotNetNuke Corporation.

In this book, Chris and Patrick have done a great job of explaining the rich functionality of DotNetNuke® from an end-user perspective. After a thorough explanation of system installation and setup, they dive into the details of how to build a variety of different websites each with varying business requirements — from a Personal site, to a League site, to a Small Business site. The book would not be complete without a solid discussion on Security and it is rounded out with an enlightening chapter on Tips and Tricks, most of which were discovered through real-world, hands-on experience by its authors. So, if you are interested in creating a new website, or migrating a legacy website to a modern platform, and you wish to utilize the highly versatile DotNetNuke® Web Content Management System, I highly recommend this book as I believe it provides the insight and guidance to allow you to achieve your goals.

Shaun Walker
Co-Founder & Chief Architect
DotNetNuke Corporation
<http://www.dotnetnuke.com>

Introduction

In this day and age, there are a number of tools available to assist you in building a website. DotNetNuke (DNN) is an open source web application framework that is ideal as a content management system (CMS). The open source nature of the project means that DNN is continually growing, making it a powerful and robust system. Individuals, small organizations, and large businesses are all realizing the benefits of using DNN for their websites.

As DNN continues to grow, the number and types of websites built upon the framework expand as well. Websites using DNN vary from personal to corporate, from single portals to multiple enterprise implementations. DNN has been used for sites including:

- Personal websites
- Clubs and online communities
- Small businesses
- Magazines and newspapers
- Online social networks
- Schools
- Hospitals
- Not-for-profit organizations
- Government organizations
- Corporate intranets and extranets

Although a number of books about DNN are available, most of them are aimed at developers and designers. They are not written in terms that make sense to the common web user. With this book, we've taken the approach that anyone should be able to pick up the book and with its guidance build a website using DNN. With a firm understanding of the administrative tools and implementation choices available in DNN, we encourage you to branch out and extend your knowledge of the framework, but to make the most of this great tool it's important to understand all the features that make building websites in DNN easy and fun.

Who This Book Is For

This book is for users of DotNetNuke 5 and primarily targets people interested in building a website for themselves or an organization. This book is for users with all levels of knowledge about DotNetNuke, from those first learning about the platform to those who have years of experience working with DNN. This book takes the powerful features of DNN and makes them easy to understand and apply for your needs. Along the way, you'll pick up a strong understanding of the administrative tools and options available in DNN.

What This Book Covers

This book covers the implementation of DotNetNuke 5, from installation to completion and ongoing maintenance. We cover a number of the core modules, skins, and providers used to administer content on your DNN site. We discuss some of the changes from the previous versions of the platform, and then how to use the new and old features alike in building a website on the platform.

The first half of the book introduces you to the platform, the core DNN concepts, and the installation and configuration options for your website. The latter half of the book applies these concepts to common uses of DNN, utilizing some of the core modules provided with the platform. By the end of this book, you should feel confident with the tools provided with DNN and be ready to realize the opportunities it provides.

How This Book Is Structured

The book follows the basic premise that you start off knowing little to nothing about DNN. As you read further into the book, we teach you more and more about the platform, building upon the previous chapters. By the time you've finished the book, you should have a complete website up and running on DNN, and understand what you should do with your website to keep things running smoothly.

- ❑ **Chapter 1: Introduction to DotNetNuke** — The first chapter introduces some of the common terms that will be used throughout the book. We explain what DNN is and some of the rich history behind the application. We also cover some of the core terms that will be used throughout the book and how these terms define the functionality that DNN provides. By the time you have read through the chapter, you should have a basic understanding of what DotNetNuke provides and be ready to move on to the installation covered in Chapter 2.
- ❑ **Chapter 2: Installing DotNetNuke** — This chapter walks you through the requirements for a DotNetNuke-powered website and the preparatory steps for the installation process. Once you have your web server configuration squared away, we will walk you through the installation process for both a local computer and a remotely hosted website. After making your way through Chapter 2 you should have DotNetNuke up and running.
- ❑ **Chapter 3: DotNetNuke Concepts and Host Configuration** — This chapter provides an overview of the core concepts of pages, modules, skins, containers, and various other definitions within the platform. Once you have a solid understanding of the terms, we'll jump into the security aspects of DotNetNuke, including the multi-portal functionality that DNN provides for you to be able to host multiple websites from a single installation. We finish off the chapter by covering the host settings and the management of extensions for the platform.
- ❑ **Chapter 4: Portal and Content Administration** — This is the chapter where we really dive into the administrative functionality that DotNetNuke provides. You'll get an overview of the various settings for your first portal, then a detailed discussion of how DNN handles security, through roles, within a portal and the ability to edit and create roles. Once you understand the role functionality, we will cover the users, and then the way that roles and users are given rights to content within DNN through the use of the permissions grid. Once you have the basics for permissions, we will get into adding pages to your website and content to those pages through the use of modules.

- ❑ **Chapter 5: Creating a Personal Website** — A personal website is often the first place people start to test a new tool or create their first website. This chapter reviews the goals, decisions, and considerations for creating a personal site in DNN. By walking through the steps to create a personal site, we build upon the administrative settings explained in previous chapters and apply these concepts to a personal website. We implement a number of modules and review the configuration options available when using these tools for your personal site.
- ❑ **Chapter 6: Creating a League Website** — The chapter looks at the process of creating a website for a small organization. By exploring the use of DNN for a softball league’s website, we expose the power of permissions-based content and engage a user community in our websites.
- ❑ **Chapter 7: Creating a Small Business Website** — The need to establish a presence on the Web is nothing new for small businesses. Many small businesses most likely have a home on the Web, but after getting their initial site live, it can become apparent how hard it is to maintain a static website without a full-time web administrator. Using DNN, you can create a robust website and keep your content current with a number of modules. Chapter 7 looks at the process of creating a small business’s e-commerce site using the Store, FAQ, and Feedback modules.
- ❑ **Chapter 8: Advanced Portal Administration** — DNN has an extremely attractive and powerful feature that allows you to manage multiple websites under a single application. Understanding the power of a multi-portal environment can help you to maximize your DNN implementation. Along with added sophistication comes greater complexity. In this chapter, we’ll review at a high level the structure of websites built in DNN to gain a better understanding of the implications to creating multiple websites, or portals, in a single installation of DNN.
- ❑ **Chapter 9: Your Website Is Up And Running, Now What?** — By this point, you should have a good understanding of how you can implement various types of websites using DNN. To follow up on that knowledge, we provide you with information on how to maintain your DNN sites, as well as some additional advanced administrative functionality that DNN provides.

What You Need to Use This Book

To use DNN, you will need to have website-hosting capabilities, either through the use of an installable web server on your own computer or through a third-party hosting provider. Because DNN runs on the Microsoft .NET platform, you will need Microsoft’s IIS web server software, as well as Microsoft’s SQL Server, either SQL Server 2000, 2005, or 2008 or one of the free Express editions.

Conventions

To help you get the most from the text and keep track of what’s happening, we’ve used a number of conventions throughout the book.

Boxes like this one hold important, not-to-be forgotten information that is directly relevant to the surrounding text.

Notes, tips, hints, tricks, and asides to the current discussion are offset and placed in italics like this.

Introduction

As for styles in the text:

- ❑ We *highlight* new terms and important words when we introduce them.
- ❑ We show keyboard strokes like this: Ctrl+A.
- ❑ We show filenames, URLs, and code within the text like so: `persistence.properties`.
- ❑ We present code in two different ways:

We use a monofont type with no highlighting for most code examples.

We use gray highlighting to emphasize code that's particularly important in the present context.

Errata

We make every effort to ensure that there are no errors in the text or in the code. However, no one is perfect, and mistakes do occur. If you find an error in one of our books, such as a spelling mistake or faulty piece of code, we would be very grateful for your feedback. By sending in errata you may save another reader hours of frustration, and at the same time you will be helping us provide even higher-quality information.

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For more information about how to use the Wrox P2P, be sure to read the P2P FAQs for answers to questions about how the forum software works as well as many common questions specific to P2P and Wrox books. To read the FAQs, click the FAQ link on any P2P page.

1

Introduction To DotNetNuke

The first web pages were created in the early 1990s, and since then managing the content of those web pages has been key to the acceptance and expansion of the World Wide Web. In the early days, this information was not managed in a specialized editor, as it was later in the 1990s, but by the web browser itself.

As the web expanded, this editing functionality became more restrictive, limited only to the owners of a web page or server. Early web pages were limited to text-based content, and the editors were rudimentary as well, providing simple text entry formatted with the Hypertext Markup Language (HTML) syntax. HTML is the syntax used to code a web page, and web browsers, such as Internet Explorer or Firefox, parse the code to display content.

A lot has changed in the nearly 20 years since the first pages launched. Every person on the Internet has the ability to create and manage his or her own web page, or a collection of pages forming a website. The tools used to manage these pages have evolved over time into extremely powerful and easy-to-use applications, enabling people with all levels of knowledge the ability to manage and create pages.

This chapter provides an overview of some of the common tools, called content management systems, available to aid in the creation of a web page, and how DotNetNuke provides those tools.

This chapter answers the following questions:

- What is a content management system?
- What is open source?
- What is DotNetNuke, and what is the history behind it?
- What does DotNetNuke provide and how?

What Is a Content Management System?

Before we get into discussing what a content management system (CMS) is, let's cover some of the basics about web pages and how they are assembled and managed. The contents of a web page are usually stored on a web server as files. These files consist of HTML code to control the formatting of the web page. In order to view a web page, a request must be made through a web browser. A web browser will present the HTML information returned from the web server in a formatted manner to the visitor of the website. You can also view the source of the page to see the HTML content that is returned from the web server.

The tools used to manage HTML have progressed over the years, from simple text editors to full-blown applications that do most, if not everything, for the user when creating a web page. A CMS can be a mix of both of these extremes, providing you with a simple way to edit the text that makes up the HTML code for a web page, or to manage all your web page(s) in an automated fashion.

A CMS is an application that allows for the editing, publishing, and management of websites. In general, a CMS will provide you with the basic tools to create a new web page and manage the content on that web page. Most websites will consist of multiple web pages, and a good CMS will provide an organizational structure for these pages and allow you to manage that structure and provide navigation options to your website's users.

There are many other benefits to using a CMS. Most CMSs will provide dynamically generated content, meaning that they store the content that makes up a web page in a predefined format, usually using a templating system to display the content and a database to store the content. The content is retrieved from the database and then displayed to the visitor of the website by applying a template to that content prior to sending the information back to the browser.

This is an important part of a CMS because the separation of the content and the layout allow flexibility in the design and layout of your websites. Most CMS systems will allow you to change the look and layout of a web page through the selection of a new theme, sometimes known as a *new skin*. Applying a new theme to your page or website allows you to change the branding of a site without having to redo all the content contained on the pages. Being able to change the look of a single web page, or even your entire website, with a theme is an important feature to look for in a CMS.

As a CMS, DNN provides the ability to change the theme of a website or page through the use of skins. We will cover skins more in Chapter 3.

Another important feature of some content management systems is their extensibility. Extensibility within a CMS can mean a number of things. In regard to the topic of this book, we will refer to extensibility as the addition and customization of functionality for a website, such as adding the ability to have a weblog (blog), host a survey, or even an e-commerce application.

There are a number of CMSs available for use in building a website, among those are a number of open source solutions such as Joomla! and Drupal that run on Linux Apache, MySQL and PHP, or otherwise known as LAMP. There are even a few open source CMSs for the Microsoft .NET Framework other than DotNetNuke.