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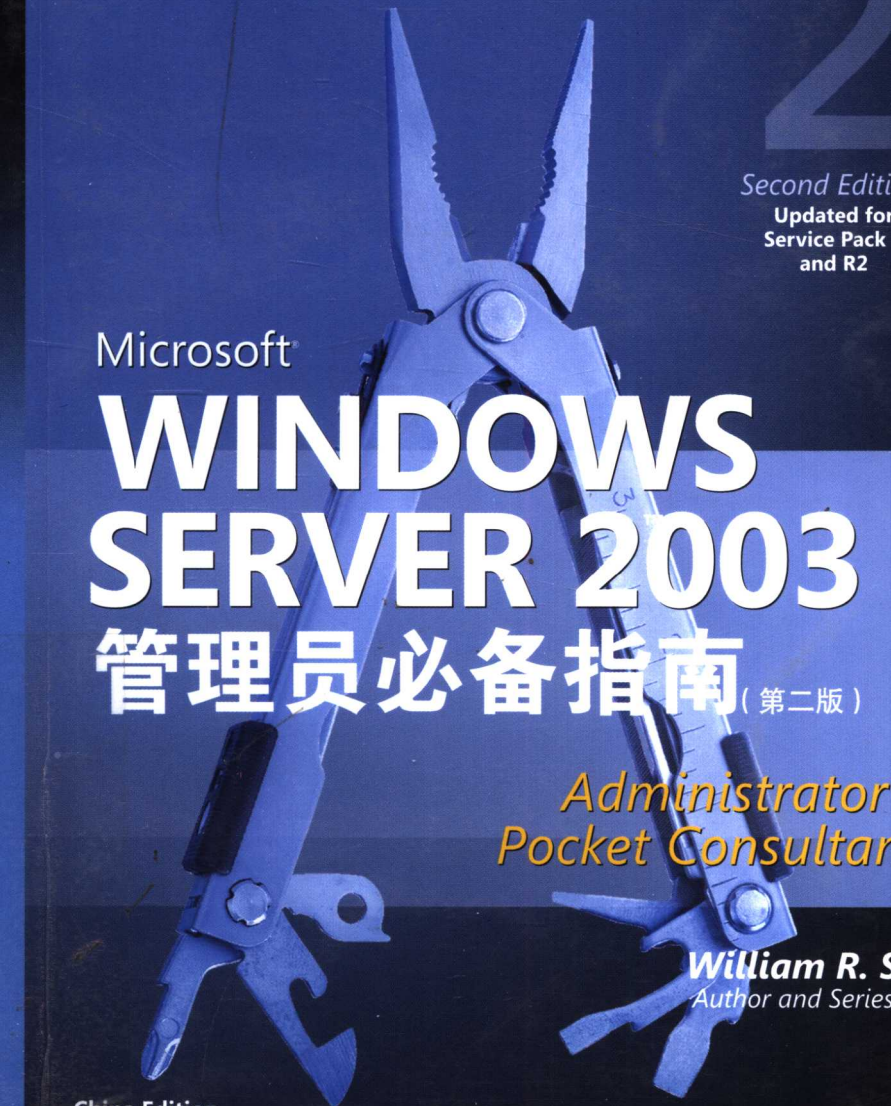

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Administrator's Pocket Consultant

William R. Stanek
Author and Series Editor

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Acknowledgments

Writing *Microsoft Windows Server 2003 Administrator's Pocket Consultant 2nd Edition* was a lot of fun—and a lot of work. As you'll see, Windows Server 2003 is very different from its predecessors, and that meant a lot of research to ensure that the book was as accurate as it could be. When all was said and done with the first edition, I ended up with a book that was nearly 1,000 pages long, and that just isn't what a Pocket Consultant is meant to be. Pocket Consultants are meant to be portable and readable—the kind of book you use to solve problems and get the job done wherever you might be. With that in mind, I had to go back in and carefully review the text, making sure I focused on the core of Windows Server 2003 administration. Revising the book for the second edition was no less challenging. There's a wealth of changes for the latest service packs and R2, which meant a lot of research and a lot of digging into the operating system internals. The result is the book you hold in your hand, which I hope you'll agree is one of the best practical, portable guides to Windows Server 2003.

It's gratifying to see techniques I've used time and again to solve problems put into a printed book so that others may benefit from them. But, no man is an island, and this book couldn't have been written without help from some very special people. As I've stated in *Microsoft Windows XP Administrator's Pocket Consultant 2nd Edition* and in *Microsoft SQL Server 2005 Administrator's Pocket Consultant*, the team at Microsoft Press is top-notch. Throughout the writing process, Maureen Zimmerman and Denise Bankaitis were instrumental in helping me stay on track and getting the tools I needed to write this book. Both Maureen and Denise did a first-rate job managing the editorial process from the Microsoft Press side. Susan McClung headed up the editorial process for nSight, Inc. Their professionalism, thoroughness, and attention to every detail are much appreciated!

Unfortunately for the writer (but fortunately for readers), writing is only one part of the publishing process. Next came editing and author review. I must say, Microsoft Press has the most thorough editorial and technical review process I've seen anywhere—and I've written a lot of books for many publishers. Special thanks to Maureen, Denise, and Susan for helping me to meet review deadlines. Rozanne Whalen was the technical editor for the book. It was a great pleasure working with Rozanne. I'd also like to thank Joseph Gustaitis for his careful copyediting of this book. I believe Joe has been the copyeditor for every Pocket Consultant that I've written. His work is always top-notch!

I owe many thank yous to Martin DelRe and Lucinda Rowley. Thank you for believing in my work and for supporting my books. Thank you also to Linda Engelman. I truly enjoy working with all of you.

Thank you also to the many SCRB reviewers at Microsoft who reviewed the final copy and to my agents at Studio B, David Rogelberg and Neil Salkind.

Hopefully, I haven't forgotten anyone, but if I have, it was an oversight. *Honest.*;-)

Introduction

Microsoft Windows Server 2003 Administrator's Pocket Consultant 2nd Edition is designed to be a concise and compulsively usable resource for Microsoft Windows Server 2003 administrators. This is the readable resource guide that you'll want on your desk at all times. The book covers everything you need to perform the core administrative tasks for servers running Windows Server 2003. Not only has this book been updated to incorporate the latest service packs and changes, but it has also been updated to cover the R2 version of Windows Server 2003.

Because the focus is on giving you maximum value in a pocket-sized guide, you don't have to wade through hundreds of pages of extraneous information to find what you're looking for. Instead, you'll find exactly what you need to get the job done. In short, the book is designed to be the one resource you turn to whenever you have questions regarding Windows Server 2003 administration. To this end, the book zeroes in on daily administration procedures, frequently used tasks, documented examples, and options that are representative while not necessarily inclusive.

One of the goals is to keep the content concise so that the book remains compact and easy to navigate while at the same time ensuring that it is packed with as much information as possible—making it a valuable resource. Thus, instead of a hefty 1000-page tome or a lightweight 100-page quick reference, you get a valuable resource guide that can help you quickly and easily perform common tasks, solve problems, and implement advanced Windows technologies like Active Directory directory service, Dynamic Host Configuration Protocol (DHCP), Windows Internet Name Service (WINS), and Domain Name System (DNS).

Who Is This Book For?

Microsoft Windows Server 2003 Administrator's Pocket Consultant covers the Standard, Enterprise, Web, and Datacenter Server editions of Windows Server 2003. The book is designed for:

- Current Windows Server 2003 system administrators
- Accomplished users who have some administrator responsibilities
- Administrators upgrading to Windows Server 2003 from previous versions
- Administrators transferring from other platforms

To pack in as much information as possible, I had to assume that you have basic networking skills and a basic understanding of Windows Server 2003 and that Windows Server 2003 is already installed on your systems. With this in mind, I don't devote entire chapters to comprehending Windows Server 2003 architecture, installing Windows Server 2003, or understanding Windows Server 2003 startup and shutdown. I do, however, cover Windows Server 2003 configuration, Group Policy, security, auditing, data backup, system recovery, and much more.

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I also assume that you're fairly familiar with Windows commands and procedures as well as the Windows user interface. If you need help learning Windows basics, you should read the Windows documentation.

How Is This Book Organized?

Microsoft Windows Server 2003 Administrator's Pocket Consultant is designed to be used in the daily administration of Windows networks, and, as such, the book is organized by job-related tasks rather than by Windows Server 2003 features. If you're reading this book, you should be aware of the relationship between Pocket Consultants and Administrator's Companions. Both types of books are designed to be a part of an administrator's library. While Pocket Consultants are the down-and-dirty, in-the-trenches books, Administrator's Companions are the comprehensive tutorials and references that cover every aspect of deploying a product or technology in the enterprise.

Speed and ease of reference are an essential part of this hands-on guide. The book has an expanded table of contents and an extensive index for finding answers to problems quickly. Many other quick reference features are included as well. These features include quick step-by-step instructions, lists, tables with fast facts, and extensive cross-references.

Chapters 1 to 5 cover the fundamental tasks you need for Windows Server 2003 administration. Chapter 1 provides an overview of Windows Server 2003 administration tools, techniques, and concepts. The chapter also introduces the security and maintenance enhancements included in Service Pack 1 and R2. Chapter 2 explores the tasks you'll need to manage Windows Server 2003 systems. Chapter 3 covers monitoring Windows Server 2003 services, processes, and events. Chapter 4 discusses Group Policy and also explains how to automate common administrative tasks. Chapter 5 details how to work with support services and remote desktop connectivity through terminal services.

Chapters 6 to 10 cover the essential tasks for managing Active Directory and administering user, computer, and group accounts. Chapter 6 introduces Active Directory structures and explains how to work with Active Directory domains. Chapter 7 explores core Active Directory administration. You'll learn how to manage computer accounts, domain controllers, and organizational units. Chapter 8 describes how to use system accounts, built-in groups, user rights, built-in capabilities, and implicit groups. You'll find extensive tables that tell you exactly when you should use certain types of accounts, rights, and capabilities. The core administration tasks for creating user and group accounts are covered in Chapter 9, with a logical follow-up for managing existing user and group accounts covered in Chapter 10.

Chapters 11 to 15 cover data administration. Chapter 11 starts by explaining how to add hard disk drives to a system and how to partition drives. Then the chapter dives into common tasks for managing file systems and drives, such as defragmenting disks, compression, encryption, and more. In Chapter 12, you'll find tasks for managing volume sets and redundant array of independent disks (RAID) arrays, as well as detailed advice on repairing damaged arrays.

Chapter 13 focuses on managing files and folders and all the tasks that go along with it. You'll also find an extensive discussion of file screening, storage reporting, and combating malware. Chapter 14 details how to enable file, drive, and folder sharing for remote network and Internet users and then goes on to cover Active Directory object security and auditing. The chapter also examines both NTFS file system (NTFS) disk quotas and Storage Resource Manager disk quotas. Chapter 15 explores data backup and recovery. The chapter starts with a discussion of backup and recovery planning and then provides step-by-step procedures for implementing a backup plan and recovering systems.

Chapters 16 to 20 cover network infrastructure and advanced administation tasks. Chapter 16 provides the essentials for installing, configuring, and testing Transmission Control Protocol/Internet Protocol (TCP/IP) networking on Windows Server 2003 systems—covering everything from installing network adapter cards to actually connecting a computer to a Windows Server 2003 domain. Chapter 17 begins with a troubleshooting guide for common printer problems and then goes on to cover tasks for installing and configuring local printers and network print servers. Chapters 18, 19, and 20 focus on the key Windows Server 2003 services: DHCP, WINS, and DNS. DHCP is used to assign dynamic Internet Protocol (IP) addresses to network clients. WINS is used to resolve computer names to IP addresses. DNS is used to resolve host names to IP addresses.

Conventions Used in This Book

I've used a variety of elements to help keep the text clear and easy to follow. You'll find code terms and listings in monospace type, except when I tell you to actually type a command. In that case, the command appears in **bold** type. When I introduce and define a new term, I put it in *italics*.

Other conventions include:

Note To provide details on a point that needs emphasis

Best Practices To examine the best technique to use when working with advanced configuration and administration concepts

Caution To warn you when there are potential problems you should look out for

More Info To provide more information on the subject

Real World To provide real-world advice when discussing advanced topics.

Tip To offer helpful hints or additional information

I truly hope you find that *Microsoft Windows Server 2003 Administrator's Pocket Consultant* provides everything you need to perform essential administrative tasks on Windows Server 2003 systems as quickly and efficiently as possible. Your thoughts are welcome at williamstanek@aol.com or visit *http://www.williamstanek.com/*. Thank you.

Support

Every effort has been made to ensure the accuracy of this book and of the contents of the companion disc. Microsoft Press provides corrections for books through the World Wide Web at the following address:

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mspinput@microsoft.com

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About the Author

William R. Stanek (*http://www.williamstanek.com*) has more than 20 years of hands-on experience with advanced programming and development. He is a leading technology expert, an award-winning author, and a pretty darn good instructional trainer. Over the years, his practical advice has helped millions of programmers, developers, and network engineers all over the world. He has written more than 50 books. Current or forthcoming books include *Microsoft Windows Command-Line Administrator's Pocket Consultant*, *Microsoft SQL Server 2005 Administrator's Pocket Consultant*, and *Windows Server 2003 Inside Out*. He is codeveloper and series editor of the *Administrator's Pocket Consultant* series.

Mr. Stanek has been involved in the commercial Internet community since 1991. His core business and technology experience comes from more than 11 years of military service. He has substantial experience in developing server technology, encryption, and Internet solutions. He has written many technical white papers and training courses on a wide variety of topics. He is widely sought after as a subject matter expert.

Mr. Stanek has an M.S. in information systems, with distinction, and a B.S. in computer science, magna cum laude. He is proud to have served in the Persian Gulf War as a combat crew member on an electronic warfare aircraft. He flew on numerous combat missions into Iraq and was awarded nine medals for his wartime service, including one of the United States of America's highest flying honors, the Air Force Distinguished Flying Cross. Currently, he resides in the Pacific Northwest with his wife and children.

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