

## Windows Powershell

Portable and precise, this pocket-sized guide delivers ready answers for automating everyday system-administration tasks with Windows PowerShell. Zero in on core commands and techniques using quick-reference tables, instructions, and lists. You'll get the focused information you need to save time and get the job done—whether at your desk or in the field. Get fast facts to: Run core cmdlets—singly or in sequence—to streamline daily tasks Execute remote commands and background jobs Inventory computers; tweak configurations; manage domains Configure server roles, role services, and features Manage and troubleshoot TCP/IP networking Administer file systems, directories, and print services Implement security settings, event logs, and auditing Read and write registry values Automate system monitoring and performance tuning Extend Windows PowerShell with snap-ins and module extensions

135,000 words... 2 Full-length Personal Training Guides in 1 Convenient Kit! Designed for anyone who wants to learn Windows PowerShell. Inside, you'll find comprehensive overviews, step-by-step procedures, frequently used tasks, documented examples, and much more. One of the goals is to keep the content so concise that the training kit remains compact and easy to navigate while at the same time ensuring that this training kit is packed with as much information as possible--making it a valuable resource. After reading this training kit, you'll have a better understanding of using Windows PowerShell to work with and manage Windows. Techniques for working at the prompt and using scripts are covered extensively. Take control of Windows and Windows Server today using PowerShell! Includes the full contents of: Windows PowerShell: The Personal Trainer Windows PowerShell for Administration: The Personal Trainer Windows PowerShell Self-Study Training Kit starts by teaching you how to: Streamline daily tasks using cmdlets Initialize the scripting environment Format output and use output streams Extend Windows PowerShell Use sessions and remoting Execute remote commands and schedule jobs Manage computers using scripts Validate PowerShell requirements while scripting Use conditional statements to control script execution Use control loops to execute commands repeatedly Record PowerShell sessions using transcripts Manage blocks of commands More, more, more Then Windows PowerShell Self-Study Training Kit shows you how to: Manage system configuration Gather system information Inventory and evaluate computers Work with files, directories and drives Configure security permissions and auditing Configure event logging Write custom events Manage configuration of system services Create and use restore points Manage computer accounts and join computers to domains Manage running processes and services Monitor system performance Resolve performance issues More, more, more PowerShell scripts offer a handy way to automate various chores. Working with these scripts effectively can be a difficult task. This comprehensive guide starts from scratch and covers advanced-level topics along with tips to make you a PowerShell Core 6.0 scripting expert.

Your hands-on guide to Windows PowerShell scripting fundamentals Expand your expertise--and teach yourself the fundamentals of Windows PowerShell scripting, including features available in Windows PowerShell 5. If you are an IT professional, power user, or consultant, you'll get the guidance, exercises, and code you need to master core techniques for automating Windows setup, deployment, and management. Discover how to: Run cmdlets and command-line utilities Administer Windows-based servers and desktops with built-in cmdlets Use providers to access external information Write and run scripts from the Windows ISE Create functions that are easy to maintain Build standardized environments with profiles Automate Windows systems with WMI, CIM cmdlets, and remoting Automate Active Directory Domain Services (AD DS) Debug scripts and handle errors Run commands that survive interruptions Use Desired State Configuration (DSC) to manage software services and their environments Get powerful new modules from PowerShell Gallery About You This book is for: IT professionals and power users who want to get productive with Windows PowerShell, including new features in Windows PowerShell 5 Windows system administrators who want to be more efficient and productive Anyone pursuing Windows PowerShell certifications No experience with Windows PowerShell or other scripting technologies necessary

This is today's definitive hands-on guide to automating Windows setup, deployment, and management with Windows PowerShell. Microsoft senior consultant Ed Wilson ("The Scripting Guy") fully illuminates every key PowerShell technique -- especially the major improvements and new cmdlets introduced with PowerShell 5.0. Wilson's positive and humorous approach has made him one of the world's most popular PowerShell instructors. His practical examples and insights will help you maximize productivity and quality in all your IT operations, and integrate automated workflows throughout any traditional or cloud environment. Windows PowerShell Step by Step, Third Edition offers more labs and structured learning exercises than any other PowerShell 5.0 tutorial. Wilson guides you step-by-step through building every script he demonstrates. He reinforces key concepts with step-by-step exercises, including "One Step Further" exercises that deepen your understanding, so you can solve your unique problems. All examples and starter files are downloadable at the TechNet Script Center Script Repository. Coverage includes: Basic PowerShell concepts and cmdlets Key providers: Alias, Certificate, Environment, File System, Function, Registry, Variable, and WSMAN Remoting, jobs, scripts, functions, and modules Windows PowerShell ISE and snippets Creating, organizing, and running PowerShell profiles WMI: objects, namespaces, providers, classes, and queries Remoting WMI and calling WMI methods via CIM Automating Active Directory and AD Domain Services Debugging scripts and handling errors Defining complex workflows Using Desired State Configuration (DSC) to quickly enforce or restore configuration settings Finding and using the PowerShell Gallery's powerful new resources Each chapter concludes with a convenient quick reference, and Wilson presents detailed appendices on coding conventions and regular expressions. If you're upgrading from any earlier version of PowerShell, a new "Start Here" section identifies the most valuable PowerShell features you haven't already learned, so you can focus your efforts where they'll make you most productive.

Enhance your knowledge of Windows PowerShell and get to grips with its latest features

Summary Windows PowerShell in Action, Third Edition is the definitive guide to PowerShell, now revised to cover PowerShell 6. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology In 2006, Windows PowerShell reinvented the way administrators and developers interact with Windows. Today, PowerShell is required knowledge for Windows admins and devs. This powerful, dynamic language provides command-line control of the Windows OS and most Windows servers, such as Exchange and SCCM. And because it's a first-class .NET language, you can build amazing shell scripts and tools without reaching for VB or C#. About the Book Windows PowerShell in Action, Third Edition is the definitive guide to PowerShell, now revised to cover PowerShell 6. Written by language designer Bruce Payette and MVP Richard Siddaway, this rich book offers a

crystal-clear introduction to the language along with its essential everyday use cases. Beyond the basics, you'll find detailed examples on deep topics like performance, module architecture, and parallel execution. What's Inside The best end-to-end coverage of PowerShell available Updated with coverage of PowerShell v6 PowerShell workflows PowerShell classes Writing modules and scripts Desired State Configuration Programming APIs and pipelines About the Reader Written for intermediate-level developers and administrators. About the Authors Bruce Payette is codesigner and principal author of the Power-Shell language. Richard Siddaway is a longtime PowerShell MVP, author, speaker, and blogger. Table of Contents Welcome to PowerShell Working with types Operators and expressions Advanced operators and variables Flow control in scripts PowerShell functions Advanced functions and scripts Using and authoring modules Module manifests and metadata Metaprogramming with scriptblocks and dynamic code PowerShell remoting PowerShell workflows PowerShell Jobs Errors and exceptions Debugging Working with providers, files, and CIM Working with .NET and events Desired State Configuration Classes in PowerShell The PowerShell and runspace APIs Appendix - PowerShell 6.0 for Windows, Linux, and MacOS

Summary PowerShell in Depth, Second Edition is the go-to reference for administrators working with Windows PowerShell. Every major technique, technology, and tactic is carefully explained and demonstrated, providing a hands-on guide to almost everything an admin would do in the shell. Written by three experienced authors and PowerShell MVPs, this is the PowerShell book you'll keep next to your monitor—not on your bookshelf! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Book A Windows admin using PowerShell every day may not have the time to search the net every time he or she hits a snag. Wouldn't it be great to have a team of seasoned PowerShell experts ready to answer even the toughest questions? That's what you get with this book. PowerShell in Depth, Second Edition is the go-to reference for administrators working with Windows PowerShell. Every major technique, technology, and tactic is carefully explained and demonstrated, providing a hands-on guide to almost everything an admin would do in the shell. Written by PowerShell MVPs Don Jones, Jeffrey Hicks, and Richard Siddaway, each valuable technique was developed and thoroughly tested, so you'll be able to consistently write production-quality, maintainable scripts while saving hours of time and effort. This book assumes you know the basics of PowerShell. What's Inside Automating tasks Packaging and deploying scripts Introduction to Desired State Configuration PowerShell security Covers PowerShell version 3 and later About the Authors Don Jones, Jeffery Hicks, and Richard Siddaway are Microsoft MVPs, trainers, and administrators. Collectively, they've authored nearly three dozen books on PowerShell and Windows administration. Table of Contents PART 1 POWERSHELL FUNDAMENTALS Introduction PowerShell hosts Using the PowerShell help system The basics of PowerShell syntax Working with PSSnapins and modules Operators Working with objects The PowerShell pipeline Formatting PART 2 POWERSHELL MANAGEMENT PowerShell Remoting Background jobs and scheduling Working with credentials Regular expressions Working with HTML and XML data PSDrives and PSProviders Variables, arrays, hash tables, and script blocks PowerShell security Advanced PowerShell syntax PART 3 POWERSHELL SCRIPTING AND AUTOMATION PowerShell's scripting language Basic scripts and functions Creating objects for output Scope PowerShell workflows Advanced syntax for scripts and functions Script modules and manifest modules Custom formatting views Custom type extensions Data language and internationalization Writing help Error handling techniques Debugging tools and techniques Functions that work like cmdlets Tips and tricks for creating reports PART 4 ADVANCED POWERSHELL Working with the Component Object Model (COM) Working with .NET Framework objects Accessing databases Proxy functions Building a GUI WMI and CIM Working with the web Desired State Configuration

Here is your best companion to the capabilities and power that PowerShell offers. Inside this book, you'll discover the object-oriented features of the shell and how they help in extracting and manipulating data. You'll then learn how to use those features to solve real-world problems: manipulating files, working with text, monitoring systems, and performing operations over the network. In addition, you'll find freely available tools and extensions that help you get results with Windows PowerShell fast.

Master the art of automating and managing your environment using PowerShell About This Book Find quick solutions to automate your environment with ease Work with large amounts of data effortlessly with PowerShell data types and secure them Packed with real-world examples to automate and simplify the management of your Windows environment Who This Book Is For If you are a system administrator who wants to become an expert in controlling and automating your Windows environment, then this book is for you. It is also for those new to the PowerShell language. What You Will Learn Optimize code through the use of functions, switches, and looping structures Install PowerShell on your Linux system Utilize variables, hashes, and arrays to store data Work with Objects and Operators to test and manipulate data Parse and manipulate different data types Write .NET classes with ease within the PowerShell Create and implement regular expressions in PowerShell scripts Deploy applications and code with PowerShell's Package management modules Leverage session-based remote management Manage files, folders, and registries through the use of PowerShell In Detail PowerShell scripts offer a handy way to automate various chores. Working with these scripts effectively can be a difficult task. This comprehensive guide starts from scratch and covers advanced-level topics to make you a PowerShell expert. The first module, PowerShell Fundamentals, begins with new features, installing PowerShell on Linux, working with parameters and objects, and also how you can work with .NET classes from within PowerShell. In the next module, you'll see how to efficiently manage large amounts of data and interact with other services using PowerShell. You'll be able to make the most of PowerShell's powerful automation feature, where you will have different methods to parse and manipulate data, regular expressions, and WMI. After automation, you will enter the Extending PowerShell module, which covers topics such as asynchronous processing and, creating modules. The final step is to secure your PowerShell, so you will land in the last module, Securing and Debugging PowerShell, which covers PowerShell execution policies, error handling techniques, and testing. By the end of the book, you will be an expert in using the PowerShell language. Style and approach This practical guide covers all the advanced PowerShell functionalities that an administrator needs to learn to automate their environments.

This portable reference to Windows PowerShell summarizes both the command shell and scripting language, and provides a concise reference to the major tasks that make PowerShell so successful. It's an ideal on-the-job tool for Windows administrators who don't have time to plow through huge books or search online. Written by Microsoft

PowerShell team member Lee Holmes, and excerpted from his Windows PowerShell Cookbook, Windows PowerShell Pocket Reference offers up-to-date coverage of PowerShell's 1.0 release. You'll find information on .NET classes and legacy management tools that you need to manage your system, along with chapters on how to write scripts, manage errors, format output, and much more. Beginning with a whirlwind tour of Windows PowerShell, this convenient guide covers: PowerShell language and environment Regular expression reference PowerShell automatic variables Standard PowerShell verbs Selected .NET classes and their uses WMI reference Selected COM objects and their uses .NET string formatting .NET datetime formatting An authoritative source of information about PowerShell since its earliest betas, Lee Holmes' vast experience lets him incorporate both the "how" and the "why" into the book's discussions. His relationship with the PowerShell and administration community -- through newsgroups, mailing lists, and his informative blog Lee Holmes -- gives him insight into problems faced by administrators and PowerShell users alike. If you're ready to learn this powerful tool without having to break stride in your routine, this is the book you want.

Expert recommendations, pragmatically applied. Automate system administration using Windows PowerShell best practices—and optimize your operational efficiency. With this practical guide, Windows PowerShell expert and instructor Ed Wilson delivers field-tested tips, real-world examples, and candid advice culled from administrators across a range of business and technical scenarios. If you're an IT professional with Windows PowerShell experience, this book is ideal. Discover how to: Use Windows PowerShell to automate Active Directory tasks Explore available WMI classes and methods with CIM cmdlets Identify and track scripting opportunities to avoid duplication Use functions to encapsulate business logic and reuse code Design your script's best input method and output destination Test scripts by checking their syntax and performance Choose the most suitable method for running remote commands Manage software services with Desired State Configuration

Learn to automate the top server operating system, Windows Server 2008 R2 Windows PowerShell 2.0 allows you to automate nearly any task for managing Windows Server, going from dozens of clicks to a single command, and repeated tasks to automated tasks. Using screen shots and helpful exercises, this book walks you through the many benefits of automating Windows Server with PowerShell 2.0, such as allowing for scalable, flexible, and rapid deployments and changes; increasing cost effectiveness; providing a timely return on IT investment; lowering labor headcount; creating secure computing environments; and establishing reliable enterprise infrastructures. In addition, real-world examples provide reinforced learning, aimed at ensuring that you work as efficiently and effectively as possible by automating both simple and complex administrative tasks with Powershell 2.0. Explains how to automate both simple and complex tasks in Windows Server 2008 R2 with Powershell 2.0 Addresses how Windows Server 2008 R2 comes with more than 550 cmdlets, allowing you to automate nearly anything Offers numerous real-world examples, end-of-chapter exercises, and helpful screen shots to reinforce your learning process The power is in your hands! Start working smarter, not harder, by automating Windows Server 2008 R2 tasks with Powershell 2.0.

Windows PowerShell Cookbook The Complete Guide to Scripting Microsoft's New Command Shell"O'Reilly Media, Inc."

A guide to using Windows PowerShell to script Windows administrative tasks and control Windows from the command line.

Learn the fundamentals of PowerShell to build reusable scripts and functions to automate administrative tasks with Windows About This Book Harness the capabilities of the PowerShell system to get started quickly with server automation Learn to package commands into a reusable script and add control structures and parameters to make them flexible Get to grips with cmdlets that allow you to perform administration tasks efficiently Who This Book Is For This book is intended for Windows administrators or DevOps users who need to use PowerShell to automate tasks. Whether you know nothing about PowerShell or know just enough to get by, this guide will give you what you need to go to take your scripting to the next level. What You Will Learn Learn to verify your installed version of PowerShell, upgrade it, and start a PowerShell session using the ISE Discover PowerShell commands and cmdlets and understand PowerShell formatting Use the PowerShell help system to understand what particular cmdlets do Utilise the pipeline to perform typical data manipulation Package your code in scripts, functions, and modules Solve common problems using basic file input/output functions Find system information with WMI and CIM Automate IIS functionality and manage it using the WebAdministration module In Detail Windows PowerShell is a task-based command-line shell and scripting language designed specifically for system administration. Built on the .NET Framework, Windows PowerShell helps IT professionals and power users control and automate the administration of the Windows operating system and applications that run on Windows. PowerShell is great for batch importing or deleting large sets of user accounts and will let you collect a massive amount of detailed system information in bulk via WMI (Windows Management Instrumentation). Getting Started with PowerShell is designed to help you get up and running with PowerShell, taking you from the basics of installation, to writing scripts and web server automation. This book, as an introduction to the central topics of PowerShell, covers finding and understanding PowerShell commands and packaging code for reusability, right through to a practical example of automating IIS. It also includes topics such as installation and setup, creating scripts, automating tasks, and using Powershell to access data stores, registry, and file systems. You will explore the PowerShell environment and discover how to use cmdlets, functions, and scripts to automate Windows systems. Along the way, you will learn to perform data manipulation and solve common problems using basic file input/output functions. By the end of this book, you will be familiar with PowerShell and be able to utilize the lessons learned from the book to automate your servers. Style and approach A practical learning guide, complete with plenty of activities, examples and screenshots.

Scripting gurus Jones and Hicks teach readers PowerShell from the ground up. They cover its underlying technologies, flexible scripting language, and enough of the .NET Framework to be effective in PowerShell scripting. (Computer Books)

Summary Learn Windows PowerShell in a Month of Lunches, Third Edition is an innovative tutorial designed for busy IT professionals. This updated edition covers PowerShell features that run on Windows 7, Windows Server 2008 R2 and later, PowerShell v3 and later, and includes v5 features like PowerShellGet. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology PowerShell is both a scripting language and an administrative shell that lets you control and automate nearly every aspect of Windows. It accepts and executes commands interactively and you can write scripts to manage most Windows servers like Exchange, IIS, and SharePoint, as well as online services like Azure and Office 365. About the Book Learn Windows PowerShell in a Month of Lunches, Third Edition is an innovative tutorial designed for busy IT professionals. Just set aside one hour a day - lunchtime would be perfect - for a month, and you'll be automating Windows tasks faster than you ever thought possible. This updated edition covers PowerShell features that run on Windows 7, Windows Server 2008 R2 and later, PowerShell v3 and later, and includes v5 features like PowerShellGet. What's Inside Learn PowerShell from the beginning, no experience required! Covers PowerShell v3 and up, Windows 7, and Windows Server 2008 R2 and later Each lesson takes you an hour or less About the Reader Experience with Windows administration is helpful. No programming or scripting experience needed. About the Author Veteran PowerShell MVPs Don Jones and Jeffery Hicks bring years as successful trainers to this concise, easy-to-follow book. Table of Contents Before you begin Meet PowerShell Using the help system Running commands Working with providers The pipeline: connecting commands Adding commands Objects: data by another name The pipeline, deeper Formatting - and why it's done on the right Filtering and comparisons A practical interlude Remote control: one-to-one, and one-to-many Using Windows Management Instrumentation and CIM Multitasking with background jobs Working with many objects, one at a time Security alert! Variables: a place to store your stuff Input and output Sessions: remote control with less work You call this scripting? Improving your parameterized script Advanced remoting configuration Using regular expressions to parse text files Additional random tips, tricks, and techniques Using someone else's script Never the end PowerShell cheat sheet

In just 24 lessons of one hour or less, Sams Teach Yourself Windows PowerShell in 24 Hours helps you streamline all facets of Windows administration, supercharging your effectiveness as an IT professional or power user. This book's straightforward, step-by-step approach shows you how to build and run scripts, extend Windows PowerShell reach, manage computers remotely, and automate a wide variety of tasks on any modern Windows server or client. Every lesson builds on what you've already learned, giving you a rock-solid foundation for real-world success! Step-by-step instructions carefully walk you through the most common PowerShell scripting tasks. Practical, hands-on examples show you how to apply what you learn. Quizzes and exercises help you test your knowledge and stretch your skills. Notes, tips, and cautions point out shortcuts, pitfalls, and solutions. Learn how to... Install, configure, and explore Windows PowerShell (including updates for PowerShell 5) Leverage .NET's remarkable power and scope with easy-to-use cmdlets Build new scripts with the console, ISE visual tools, and other popular hosts Apply best practices for writing more reliable, flexible, team-friendly scripts Work effectively with the pipeline, objects, and data Extend Windows PowerShell reach via providers, drives, and output Run external tools like ping, ipconfig, and tracert from within PowerShell Remotely manage computers with basic and advanced remoting (WinRM), WMI, and Regex Configure Windows devices across the web with PSWA Sort, filter, measure, format, export, and convert script output Run Windows PowerShell flexibly, using background and scheduled jobs Customize your environment with profile scripts, alternate credentials, thirdparty tools, and packages Strengthen your control over Windows systems and services with Desired State Configuration Administer key tasks on SQL Server, SharePoint, and other Windows servers Master PowerShell skills needed to earn many Microsoft certifications

Summary Here's your chance to learn from the best in the business. PowerShell Deep Dives is a trove of essential techniques, practical guidance, and the expert insights you earn only through years of experience. Editors Jeffery Hicks, Richard Siddaway, Oisin Grehan, and Aleksandar Nikolic hand-picked the 28 chapters in the book's four parts: Administration, Scripting, Development, and Platforms. About the Technology PowerShell has permanently changed Windows administration. This powerful scripting and automation tool allows you to control virtually every aspect of Windows and most Microsoft servers like IIS and SQL Server. Here's your chance to learn from the best in the business. About this Book PowerShell Deep Dives is a trove of essential techniques and practical guidance. It is rich with insights from experts who won them through years of experience. The book's 28 chapters, grouped in four parts (Administration, Scripting, Development, and Platforms), were hand-picked by four section editors: Jeffery Hicks, Richard Siddaway, Oisin Grehan, and Aleksandar Nikolic. Whether you're just getting started with PowerShell or you already use it daily, you'll find yourself returning to this book over and over. What's Inside Managing systems through a keyhole The Ten Commandments of PowerShell scripting Scalable scripting for large datasets Adding automatic remoting Provisioning web servers and websites automatically to IIS 8 And 23 more fantastic chapters Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Authors Editors Jeffery Hicks, Richard Siddaway, Oisin Grehan, and Aleksandar Nikolic are joined by PowerShell experts Chris Bellee, Bartek Bielawski, Robert C. Cain, Jim Christopher, Adam Driscoll, Josh Gavant, Jason Helmick, Don Jones, Ashley McGlone, Jonathan Medd, Ben Miller, James O'Neill, Arnaud Petitjean, Vadims Podans, Karl Prosser, Boe Prox, Matthew Reynolds, Mike Robbins, Donabel Santos, Will Steele, Trevor Sullivan, and Jeff Wouters. Table of Contents PART 1 POWERSHELL ADMINISTRATION Diagnosing and troubleshooting PowerShell remoting CIM sessions 22 Collecting and analyzing performance counter data TCP port communications with PowerShell Managing systems through a keyhole Using PowerShell to audit user logon events Managing and administering a certification authority database with PowerShell Using PowerShell to reduce Active Directory token bloat PART 2 POWERSHELL SCRIPTING The 10 PowerShell scripting commandments Avoiding the pipeline A template for handling and reporting errors Tips and tricks for creating complex or advancedHTML reports with PowerShell Using and "abusing" dynamic

parameters PowerShell type formatting Scalable scripting for large data sets: pipeline and database techniques Building your own WMI-based cmdlets Turning command-line tools into PowerShell tools PART 3 POWERSHELL FOR DEVELOPERS Using Source Control Software with PowerShell Inline .NET code PowerShell and XML: better together Adding automatic remoting to advanced functions and cmdlets Taming software builds (and other complicated processes) with psake PART 4 POWERSHELL PLATFORMS PowerShell and the SQL Server provider Creating flexible subscriptions in SSRS Inventory database table statistics using PowerShell SQL Server Management Objects WSUS and PowerShell Provisioning IIS web servers and sites with PowerShell Active Directory Group Management application

PowerShell gives Windows administrators immense power to automate and customize virtually any administrative task—saving time, increasing productivity, and giving you unprecedented flexibility. PowerShell 2.0 adds important new features that offer even greater control over Windows environments. Windows PowerShell Unleashed will not only give you deep mastery over PowerShell but also a greater understanding of the features being introduced in PowerShell 2.0—and show you how to use it to solve your challenges in your production environment. The authors begin by systematically illuminating PowerShell's core concepts and techniques, helping you leverage whatever Windows scripting experience you may already have. Next, using complete, easy-to-adapt examples, they show how to use PowerShell to manage file systems, permissions, the Registry, WMI objects, Active Directory, Exchange Server, and many other elements of the Windows environment. More than half of this edition's material and examples have been completely rewritten for PowerShell 2.0, and the authors have added seven entirely new chapters—covering security, PowerShell application development, Systems Center Operations Manager 2007, and much more. Whatever Windows systems you manage, Windows PowerShell Unleashed contains the scripts and techniques you need to manage them far more effectively. Install, configure, and customize PowerShell 2.0 and master its command line interface Discover proven best practices for PowerShell scripting Make the most of PowerShell cmdlets—especially the new cmdlets included in PowerShell 2.0 Leverage PowerShell's deep .NET Framework integration Secure your scripts using code signing, execution policies, and PowerShell's built-in security Use custom script functions to manage permissions more efficiently Control the registry locally and remotely and use PowerShell's powerful new registry transactions Use PowerShell as a management interface Automate Exchange Server 2007 administrative tasks Automate the management of Microsoft's new System Center Operations Manager 2007 Preview the forthcoming Graphical PowerShell scripting environment Understand how to manage Active Directory using PowerShell Master using PowerShell with WMI Learn PowerShell 2.0 remoting

Your one-stop reference for Windows Server 2019 and PowerShell know-how Windows Server 2019 & PowerShell All-in-One For Dummies offers a single reference to help you build and expand your knowledge of all things Windows Server, including the all-important PowerShell framework. Written by an information security pro and professor who trains aspiring system administrators, this book covers the broad range of topics a system administrator needs to know to run Windows Server 2019, including how to install, configure, and secure a system. This book includes coverage of: Installing & Setting Up Windows Server Configuring Windows Server 2019 Administering Windows Server 2019 Configuring Networking Managing Security Working with Windows PowerShell Installing and Administering Hyper-V Installing, Configuring, and Using Containers If you're a budding or experienced system administrator looking to build or expand your knowledge of Windows Server, this book has you covered.

Microsoft® Windows™ PowerShell is a helpful scripting technology that enables the automation of system management tasks and the creation of system management tools. PowerShell runs on Windows XP, 2003, 2008, and Vista. Unlike traditional Windows shell scripting, PowerShell scripting is object-based and is designed to work with the .NET Framework. This completely updated edition of Microsoft Windows PowerShell Programming for the Absolute Beginner teaches aspiring programmers Windows PowerShell scripting whether they're using Windows PowerShell 1.0 or 2.0. To help make learning fun and interesting, you will learn how to program through the development of computer games, and you will develop a new game that reinforces a newly learned concept in each chapter. It's the easiest way to learn! By the time you have finished the book, not only will you have access to a collection of working sample scripts, you also will have laid a foundation upon which you can begin to tackle real-world challenges and new languages. Prepare for the future of Microsoft automation with this no-nonsense guide Windows PowerShell 2 is the scripting language that enables automation within the Windows operating system. Packed with powerful new features, this latest version is complex, and Windows PowerShell 2 For Dummies is the perfect guide to help system administrators get up to speed. Written by a Microsoft MVP with direct access to the program managers and developers, this book covers every new feature of Windows PowerShell 2 in a friendly, easy-to-follow format. Windows PowerShell 2 is the updated scripting language that enables system administrators to automate Windows operating systems System administrators with limited scripting experience will find this book helps them learn the fundamentals of Windows PowerShell 2 quickly and easily Translates the jargon and complex syntax of Windows PowerShell 2 Covers script debugging improvements, the ability to invoke commands remotely, and the new user interface Uses real-world applications to clarify the theory, fundamentals, and techniques of the scripting language Written by a Microsoft MVP with direct access to the developers of Windows PowerShell 2 Windows PowerShell 2 For Dummies makes this tool easily accessible to administrators of every experience level.

A guide to using Windows PowerShell to script Windows administrative tasks and control Windows from the command line includes more than four hundred task-oriented recipes and more than one hundred scripts.

"Portable help for PowerShell scripters"--Cover.

Want to perform programming tasks better, faster, simpler, and make them repeatable? Take a deep dive into Windows PowerShell and discover what this distributed automation platform can

do. Whether you're a .NET developer or IT pro, this concise guide will show you how PowerShell's scripting language can help you be more productive on everyday tasks. Quickly learn how to create PowerShell scripts and embed them into your existing applications, write "little languages" to solve specific problems, and take charge of your code. This book includes example scripts that you can easily pull apart, tweak, and then use in your own PowerShell and .NET solutions. Slice and dice text, XML, CSV, and JSON with ease Embed PowerShell to provide scripting capabilities for your C# apps Create GUI applications five to ten times faster with less code Leverage PowerShell's capabilities to work with the Internet Interact with DLLs and create objects, automatically display properties, and call methods in live interactive sessions Build domain-specific languages (DSLs) and vocabularies to express solutions more clearly Work with Microsoft Office via the Component Object Model (COM) Discover PowerShell v3 features included with Windows 8 and Windows Server 2012

Take advantage of everything Microsoft's new PowerShell 7 has to offer PowerShell 7 for IT Pros is your guide to using PowerShell 7, the open source, cross-platform version of Windows PowerShell. Windows IT professionals can begin setting up automation in PowerShell 7, which features many improvements over the early version of PowerShell Core and Windows PowerShell. PowerShell 7 users can enjoy the high level of compatibility with the Windows PowerShell modules they rely on today. This book shows IT professionals—especially Windows administrators and developers—how to use PowerShell7 to engage in their most important tasks, such as managing networking, using AD/DNS/DHCP, leveraging Azure, and more. To make it easy to learn everything PowerShell 7 has to offer, this book includes robust examples, each containing sample code so readers can follow along. Scripts are based on PowerShell 7 running on Windows 10 19H1 or later and Windows Server 2019. • Learn to navigate the PowerShell 7 administrative environment • Use PowerShell 7 to automate networking, Active Directory, Windows storage, shared data, and more • Run Windows Update, IIS, Hyper-V, and WMI and CIM cmdlets within PowerShell 7 • Understand how to handle reporting in the new PowerShell 7 environment PowerShell 7 for IT Pros provides exclusive coverage of using PowerShell with both cloud-based systems and virtualized environments (Hyper V and Azure). Written by PowerShell veteran Thomas Lee, this is the only book you'll need to get started with PowerShell 7.

Get started with this powerful Windows administration tool Automate Windows administration tasks with ease by learning the fundamentals of Windows PowerShell 3.0. Led by a Windows PowerShell expert, you'll learn must-know concepts and techniques through easy-to-follow explanations, examples, and exercises. Once you complete this practical introduction, you can go deeper into the Windows PowerShell command line interface and scripting language with Windows PowerShell 3.0 Step by Step. Discover how to: Create effective Windows PowerShell commands with one line of code Apply Windows PowerShell commands across several Windows platforms Identify missing hotfixes and service packs with a single command Sort, group, and filter data using the Windows PowerShell pipeline Create users, groups, and organizational units in Active Directory Add computers to a domain or workgroup with a single line of code Run Windows PowerShell commands on multiple remote computers Unleash the power of scripting with Windows Management Instrumentation (WMI)

From the premiere author in Windows administration and Microsoft technologies, a hands-on, personalized guide to Windows PowerShell 3.0 and Windows PowerShell 4.0. Chances are that if you work with Windows computers you've heard of Windows PowerShell. You may even have read other books about PowerShell and put PowerShell to work. However, you probably still have many questions about PowerShell, or you may simply be curious about what PowerShell 3.0 and PowerShell 4.0 have to offer that their predecessors didn't. Windows PowerShell 3.0 and Windows PowerShell 4.0 are enhanced and extended editions of the original implementations of PowerShell. The changes are dramatic, and they improve both the performance capabilities of PowerShell and its versatility. You can do things with PowerShell 3.0 and PowerShell 4.0 that you simply could not do with earlier versions, and you can perform standard tasks in much more efficient ways than before. This book is designed for anyone who wants to learn Windows PowerShell. Inside, you'll find comprehensive overviews, step-by-step procedures, frequently used tasks, documented examples, and much more. One of the goals is to keep the content so concise that the book remains compact and easy to navigate while at the same time ensuring that the book is packed with as much information as possible--making it a valuable resource.

Need a precise, focused training guide for Windows PowerShell? Get this Fast Start guide to quickly learn Windows PowerShell fundamentals. Regardless of whether you are an IT manager, developer, administrator or an advanced user, this Fast Start guide will help you learn the essential concepts needed to successfully work with Windows PowerShell. Covers all versions of Windows PowerShell, including PowerShell 3.0, 4.0 and 5.0. Use this guide with all current releases of Windows and Windows Server, including Windows 7, Windows 8.1, Windows 10, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

With more than 250 ready-to-use recipes, this solutions-oriented introduction to the Windows PowerShell scripting environment and language provides administrators with the tools to be productive immediately.

Efficiently administer and maintain your development environment with Windows PowerShell About This Book Explore scripting and automation techniques with Windows PowerShell Gain concrete knowledge of Windows PowerShell scripting to perform professional level scripting Discover the benefits of the Configuration Management Platform with this step-by-step guide that includes real-world scripting examples Who This Book Is For If you are an IT professional or developer who has worked on the .Net platform and you want to learn automation using Windows PowerShell, then this book is for you. This self-start guide takes you from the basics and gradually moves to an intermediate level to show you how to perform professional scripting. What You Will Learn Understand the concepts of building PowerShell scripts and the basics of programming Manage the LYNC, Exchange, and SharePoint platforms Create a Pull server using a SMB file share and HTTP and HTTPS Use .NET classes in Windows PowerShell and C# to manage Exchange Online Use PowerShell in C# to manage Exchange Online and work with .NET classes in PowerShell Automate LYNC clients, consuming Client Server Object Models to administrate SharePoint Online In Detail Windows PowerShell 5.0 for .NET Developers is your self-start guide to performing automation using Windows PowerShell. This book will help you to understand the PowerShell syntax and grammar and will also teach you techniques to remove the rough edges of manual deployments. Packed with PowerShell scripts and sample C# codes to automate tasks, it also includes real-world scenarios such as administrating office servers to help you save time and perform deployments swiftly and efficiently. The book begins with the Windows PowerShell basics, explores the significant features of Windows Management Framework 5.0, covers the basic concepts of Desired State Configuration and the importance of idempotent deployments. By the end of the book, you will have a good understanding of Windows PowerShell's features and will be able to automate your tasks and manage configuration effectively. Style and approach This is an easy-to-follow step-by-step guide with text-enabled screenshots. Each topic is explained with codes and examples. It also includes multiple approaches for a number of tasks to let you choose the best one for you depending on your

scenario.

Apply best practices for automating system administration with Windows PowerShell 2.0 and optimize your operational efficiency and results. This guide captures the field-tested tips, real-world lessons, and candid advice of practitioners across the range of business and technical scenarios and across the scripting life cycle. Discover how to: Take advantage of new features and cmdlets in Windows PowerShell 2.0 Plan scripting usage scenarios and define standards Deploy Windows PowerShell 2.0 to desktops and servers Configure scripting environments Optimize remote scripting capabilities Work with Active Directory and WMI Design functions and modules Optimize input and output Handle errors Document scripts Test and troubleshoot scripts Avoid scripting pitfalls The companion CD includes a fully searchable eBook and sample scripts. For customers who purchase an ebook version of this title, instructions for downloading the CD files can be found in the ebook.

Windows PowerShell transformed the way administrators and developers interact with Windows. PowerShell, an elegant dynamic language from Microsoft, lets its users script administrative tasks and control Windows from the command line. Because it's a full-featured, first-class Windows programming language, programmers and power- users can now do things in a shell that previously required VB, VBScript, or C#. Windows PowerShell in Action, Third Edition is a completely revised edition of the bestselling book on PowerShell. It keeps the same crystal-clear introduction to PowerShell as the last edition and adds extensive coverage of v3, v4, and v5 features such as PowerShell Workflows, Desired State Configuration, PowerShell classes and the PowerShell APIs, new error handling and debugging features. It includes full chapters on these topics and also covers new language elements and operators, PowerShell remoting, CIM, events, working with data such as XML and flat files, The Second Edition's coverage of batch scripting and string processing, COM, WMI, and .NET have all been significantly revised and expanded. The book includes many popular usage scenarios and is rich in interesting examples that will spark the reader's imagination. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Presents a guide on how to use Windows PowerShell to script Windows administrative tasks and control Windows from the command line.

Providing you with the programmer's approach to understanding Windows PowerShell, this book introduces the concepts, components, and development techniques for building software packages that leverage the power of PowerShell. The author team of PowerShell experts shows you how PowerShell makes writing code easy by providing a runtime engine with its own parser, plus you'll discover that with PowerShell, all of the .NET Framework objects become accessible via scripting, making PowerShell a very powerful addition to your toolbox and a popular choice for future development.

Here's the complete guide to Windows PowerShell 2.0 for administrators and developers Windows PowerShell is Microsoft's next-generation scripting and automation language. This comprehensive volume provides the background that IT administrators and developers need in order to start using PowerShell automation in exciting new ways. It explains what PowerShell is, how to use the language, and specific ways to apply PowerShell in various technologies. Windows PowerShell is Microsoft's standard automation tool and something that every Windows administrator will eventually have to understand; this book provides the background necessary to apply PowerShell automation. Covers how to use the language and specific ways to apply PowerShell in a variety of scenarios Addresses new features in the latest version of PowerShell and the additional functionality delivered by new products that provided direct or indirect ways to use PowerShell for scripting and automation purposes Explores the language fundamentals and how to use PowerShell for desktop, server, server application, and virtualization/cloud situations This thorough guide goes well beyond theory to offer real-world information and new scripting techniques, enabling administrators and developers to make the most of PowerShell 2.0.

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