

Automating Administration With Windows Powershell 2

Summary PowerShell and WMI is an example-driven guide for administrators managing networks of Windows servers and desktops. With 150 practical examples, including ready-to-reuse scripts and techniques, you'll learn the ins and outs of automating WMI via PowerShell v3. You'll also find deep coverage of all aspects of Windows administration, including IIS, DNS and Hyper-V. About the Technology WMI, on its own, is simply a collection of Windows management facilities. Paired with PowerShell, however, WMI becomes a brilliant toolset for automating servers, networks, and remote Windows computers. About the Book PowerShell and WMI is an industrial-strength guide for administrators of Windows networks, servers, and desktops. You'll start with practical overviews of PowerShell and of WMI. Then you'll explore 150 specific examples—all with ready-to-use scripts—designed to simplify your day-to-day system management. Each tested technique is configured to load as part of a PowerShell module. A set of handy appendixes includes references for PowerShell and WMI. Prior exposure to PowerShell and WMI is helpful but not required. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What's Inside Managing Windows, IIS, and Hyper-V Remote desktops and devices Logs, jobs, and performance New PowerShell v3 WMI functionality ===== Table of Contents PART 1 TOOLS OF THE TRADE Solving administrative challenges Using PowerShell WMI in depth Best practices and optimization PART 2 WMI IN THE ENTERPRISE? System documentation Disk systems Registry administration Filesystem administration Services and processes Printers Configuring network adapters Managing IIS Configuring a server Users and security Logs, jobs, and performance Administering Hyper-V with PowerShell and WMI PART 3 THE FUTURE: POWERSHELL V3 AND WMI WMI over WSMAN Your own WMI cmdlets CIM cmdlets and sessions

Your One-Stop Reference for VMware vSphere Automation If you manage vSphere in a Windows environment, automating routine tasks can save you time and increase efficiency. VMware vSphere PowerCLI is a set of pre-built commands based on Windows PowerShell that is designed to help you automate vSphere processes involving virtual machines, datacenters, storage, networks, and more. This detailed guide—using a practical, task-based approach and real-world examples—shows you how to get the most out of PowerCLI's handy cmdlets. Learn how to: Automate vCenter Server and ESX/ESX(i) Server deployment and configuration Create and configure virtual machines and use vApps Secure, back up, and restore your virtual machines Monitor, audit, and report the status of your vSphere environment Use the PowerCLI SDK, PowerWF Studio, and vEcoShell Schedule and view automation Add a GUI front end to your scripts 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. Prior knowledge of PowerShell's core elements and applications is required for this book.

Focused content on automating the user authentication and authorization tool for Windows environments Automation helps make administration of computing environments more manageable. It alleviates the repetition of repeating frequent tasks and automates just about any task for Active Directory, Windows PowerShell 2.0. Focused on everyday and frequently performed tasks, this indispensable guide provides you with the PowerShell solutions for these tasks.

Solutions are presented in a step-by-step format so that you can fully grasp how the new Active Directory module for PowerShell provides command-line scripting for administrative, configuration, and diagnostic tasks. Walks you through the processes and tools required to automate everyday tasks Offers PowerShell solutions for maintaining a Windows Server 2008 R2 environment Includes real-world examples, explanations of concepts, and step-by-step solutions This unique book allows you to work more efficiently and effectively and keep up with the ever-increasing demands from businesses.

Grasp advanced PowerShell 7.1 functionalities for effective automation of your environment Key Features Automate complex tasks, manipulate data, and secure your environment Work with dual code for PowerShell 7 and Windows PowerShell to maintain compatibility with older versions See PowerShell in action, from learning the fundamentals to creating classes, scripts, and modules Book Description PowerShell scripts offer a convenient way to automate various tasks, although working effectively with these scripts can be challenging. Mastering PowerShell Scripting helps you to navigate through PowerShell's capabilities. This extensively revised edition includes new chapters on debugging and troubleshooting and creating GUIs (online chapter). Learn the new features of PowerShell 7.1 by working with parameters, objects, and .NET classes from within PowerShell 7.1. This comprehensive guide starts with the basics before moving on to advanced topics, including asynchronous processing, desired state configuration, using more complex scripts and filters, debugging issues, and error-handling techniques. Explore how to efficiently manage substantial amounts of data and interact with other services using PowerShell 7.1. This book will help you to make the most of PowerShell's automation features, using different methods to parse data, manipulate regular expressions, and work with Windows Management Instrumentation (WMI). What you will learn Optimize code with functions, switches, and looping structures Test and debug your scripts as well as raising and catching errors Work with objects and operators to test and manipulate data Parse and manipulate different data types Use jobs, runspaces, and runspace pools to run code asynchronously Write .NET classes with ease within PowerShell Create and implement regular expressions in PowerShell scripts Make use of advanced techniques to define and restrict the behavior of parameters Who this book is

for This book is for system administrators who want to automate and speed up their processes using PowerShell and Windows PowerShell. Some familiarity with operating systems would be useful, but not essential.

Your hands-on, step-by-step guide to automating Windows administration with Windows PowerShell 3.0 Teach yourself the fundamentals of Windows PowerShell 3.0 command line interface and scripting language—one step at a time. Written by a leading scripting expert, this practical tutorial delivers learn-by-doing exercises, timesaving tips, and hands-on sample scripts for performing administrative tasks on both local and remote Windows systems. Discover how to: Use built-in cmdlets to execute commands Write scripts to handle recurring tasks Use providers to access information beyond the shell environment Configure network components with Windows Management Instrumentation Manage users, groups, and computers with Active Directory services Execute scripts to administer and troubleshoot Microsoft Exchange Server 2010

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. Learn the art of leveraging PowerShell to automate Office 365 repetitive tasks About This Book Master the fundamentals of PowerShell to automate Office 365 tasks. Easily administer scenarios such as user management, reporting, cloud services, and many more. A fast-paced guide that leverages PowerShell commands to increase your productivity. Who This Book Is For The book is aimed at sys admins who are administering office 365 tasks and looking forward to automate the manual tasks. They have no knowledge about PowerShell however basic understanding of PowerShell would be advantageous. What You Will Learn Understand the benefits of scripting and automation and get started using Powershell with Office 365 Explore various PowerShell packages and permissions required to manage Office 365 through PowerShell Create, manage, and remove Office 365 accounts and licenses using PowerShell and the Azure AD Learn about using powershell on other platforms and how to use Office 365 APIs through remoting Work with Exchange Online and SharePoint Online using PowerShell Automate your tasks and build easy-to-read reports using PowerShell In Detail While most common administrative tasks are available via the Office 365 admin center, many IT professionals are unaware of the real power that is available to them below the surface. This book aims to educate readers on how learning PowerShell for Office 365 can simplify repetitive and complex administrative tasks, and enable greater control than is available on the surface. The book starts by teaching readers how to access Office 365 through PowerShell and then explains the PowerShell fundamentals required for automating Office 365 tasks. You will then walk through common administrative cmdlets to manage accounts, licensing, and other scenarios such as automating the importing of multiple users, assigning licenses in Office 365, distribution groups, passwords, and so on. Using practical examples, you will learn to enhance your current functionality by working with Exchange Online, and SharePoint Online using PowerShell. Finally, the book will help you effectively manage complex and repetitive tasks (such as license and account management) and build productive reports. By the end of the book, you will have automated major repetitive tasks in Office 365 using PowerShell. Style and approach This step by step guide focuses on teaching the fundamentals of working with PowerShell for Office 365. It covers practical usage examples such as managing user accounts, licensing, and administering common Office 365 services. You will be able to leverage the processes laid out in the book so that

you can move forward and explore other less common administrative tasks or functions.

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

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.

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.

The definitive guide to automating SQL Server administration with Powershell scripts If you're a SQL Server database administrator, this book will make your life easier. Windows PowerShell is an administrative scripting tool that allows you to automate many tasks you're probably currently doing by hand. This nuts-and-bolts guide shows you how to create Windows PowerShell scripts to administer almost every aspect of SQL Server. You'll get a thorough introduction to PowerShell basics and all the PowerShell components that have been integrated into SQL Server 2008, as well as actual administration tasks. The book provides complete scripts that have been tested and proven, saving you hours of effort. The new release of Microsoft SQL Server 2008 now includes Windows PowerShell, allowing administrators of large-scale enterprise databases to automate many tasks SQL Server 2008 Administration with Windows PowerShell introduces you to PowerShell, covering its components in detail as well as providing basic instruction in using scripts to administer the database The book includes numerous examples of SQL tasks that have been automated and also provides completed scripts that you can put to use immediately The Companion Web site includes complete code scripts If you're a database administrator, the scripts and techniques in SQL Server 2008 Administration with Windows PowerShell will save you hours of effort.

Cookbook with recipes based on real life examples. This book is written to assist the daily tasks for systems administrators, engineers, and architects working with Windows Server 2012.

Windows PowerShell is a scripting language that simplifies Windows system administration. PowerShell in Practice is a hands-on reference for administrators wanting to learn and use PowerShell. Following the "in Practice" style, individual related techniques are clustered into chapters. Each technique is presented in the form: problem, solution, discussion, and includes annotated code listings. Written to answer the question "How can PowerShell make my job as an administrator easier?" this book concentrates on practical tasks and automation. Starting with an a brief tutorial and review, the majority of the book focuses on two major PowerShell usage areas: People - user accounts, mailboxes, desktop configuration; and Servers - Active Directory, Exchange, IIS, and more. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book.

This book is great for administrators who are new to automating Hyper-V administration tasks using PowerShell. If you are familiar with the PowerShell command line and have some experience with the Windows Server, this book is perfect for you.

Learn intermediate PowerShell scripting techniques to automate Windows network administration.

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

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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.

Leverage the expertise of Windows PowerShell and automate Microsoft products and technologies, on-premises and in-cloud About This Book *Meet complex administration requirements with efficiency using Windows PowerShell *Build advanced task automation skills via PowerShell scripting for Microsoft technologies such as Nano Server and System Center, Office 365, and so on *A comprehensive PowerShell guide with a set of scenarios, real-world examples, and scripts to easily get you started with Windows PowerShell and its capabilities Who This Book Is For This handbook is for system administrators who want to master Windows PowerShell as a scripting language, automate repeated daily tasks, and perform complex administration in timely manner with less effort. In order to get the maximum benefit from this book, you need to have some basic scripting knowledge and a good administration experience. What You Will Learn *Discover and understand the concepts and basics of Windows PowerShell *Explore Windows PowerShell's extensibility and flexibility *Discover the new features and enhancements of Windows PowerShell *Get to know the PowerShell syntax and grammar such as pipeline, looping, and working with objects *Extend PowerShell's capabilities with the .NET framework, XML, WMI, and COM+ *Configure and deploy Windows Server Core features, services, and components *Manage and configure the Microsoft virtualization platform, Hyper-V *Manage and configure Cloud technologies such as Office 365 and Microsoft Azure In Detail Technology's growing rhythm is running faster than before, and the business needs are getting more complex every day. Thus, it is the time to gain a new talent to meet this challenge. With PowerShell in your toolbox, you can easily perform many tasks in less time, with less effort, and with lower costs. This book comes with a set of real-world scenarios and detailed scripts that will help you getting started with PowerShell. You will learn what is new in PowerShell 5.0 such as Desired State Configuration (DSC) and Classes, automation with Office 365, writing the syntax, and building your scripts and developing extensions and modules. You will also gain deep insights into automating various tasks and integrating PowerShell with different technologies, products, and tools, such as Windows Server, Active Directory, Nano Server, Hyper-V, System Center, Office 365, Microsoft Azure, and more.

Learn PowerShell from the inside out, right from basic scripting all the way to becoming a master at automating, managing, and maintaining your Windows environment About This Book Use proven best practices to optimize code and automate redundant tasks Get to grips with PowerShell's advanced functions and effectively administer your system Create a variety of PowerShell scripts to automate your environment Who This Book Is For If you are a system administrator who wants to become an expert in automating and managing your Windows environment, then this course is for you. Some basic understanding of PowerShell would be helpful. What You Will Learn Discover PowerShell commands and cmdlets and understand PowerShell formatting Solve common problems using basic file input/output functions Use .NET classes in Windows PowerShell and C# and manage Exchange Online Use PowerShell in C# to manage Exchange Online and work with .NET classes in PowerShell Automate LYNC clients, consuming client-side object models to administrate SharePoint Online Optimize code through the use of functions, switches, and looping structures Manage files, folders, and registries through the use of PowerShell Discover best practices to manage Microsoft systems In Detail Are you tired of managing Windows administrative tasks manually and are looking to automate the entire process? If yes, then this is the right course for you. This learning path starts your PowerShell journey

and will help you automate the administration of the Windows operating system and applications that run on Windows. It will get you up and running with PowerShell, taking you from the basics of installation to writing scripts and performing web server automation. You will explore the PowerShell environment and discover how to use cmdlets, functions, and scripts to automate Windows systems. The next installment of the course focuses on gaining concrete knowledge of Windows PowerShell scripting to perform professional-level scripting. The techniques here are packed with PowerShell scripts and sample C# code to automate tasks. You will use .NET classes in PowerShell and C# to manage Exchange Online. In the final section, you will delve into real-world examples to learn how to simplify the management of your Windows environment. You will get to grips with PowerShell's advanced functions and how to most effectively administer your system. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products: Getting Started with PowerShell by Michael Shepard Windows PowerShell for .Net Developers Second Edition by Chendrayan Venkatesan and Sherif Talaat Mastering Windows PowerShell Scripting by Brenton J.W. Blawat Style and approach This is a step-by-step course to help you effectively administer and maintain your development environment with PowerShell.

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.

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.

Automating Active Directory Administration with Windows PowerShell 2.0 John Wiley & Sons

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

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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, Jeffrey 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

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

Enhance your skills in expert module development, deployment, security, DevOps, and cloud Key Features A step-by-step guide to get you started with PowerShell Core 6.0 Harness the capabilities of PowerShell Core 6.0 to perform simple to complex administration tasks Learn core administrative concepts such as scripting, pipelines, and DSC Book Description Beginning with an overview of the different versions of PowerShell, Learn PowerShell Core 6.0 introduces you to VSCode and then dives into helping you understand the basic techniques in

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PowerShell scripting. You will cover advanced coding techniques, learn how to write reusable code as well as store and load data with PowerShell. This book will help you understand PowerShell security and Just Enough Administration, enabling you to create your own PowerShell repository. The last set of chapters will guide you in setting up, configuring, and working with Release Pipelines in VSCode and VSTS, and help you understand PowerShell DSC. In addition to this, you will learn how to use PowerShell with Windows, Azure, Microsoft Online Services, SCCM, and SQL Server. The final chapter will provide you with some use cases and pro tips. By the end of this book, you will be able to create professional reusable code using security insight and knowledge of working with PowerShell Core 6.0 and its most important capabilities. What you will learn Get to grips with Powershell Core 6.0 Explore basic and advanced PowerShell scripting techniques Get to grips with Windows PowerShell Security Work with centralization and DevOps with PowerShell Implement PowerShell in your organization through real-life examples Learn to create GUIs and use DSC in production Who this book is for If you are a Windows administrator or a DevOps user who wants to leverage PowerShell to automate simple to complex tasks, then this book is for you. Whether you know nothing about PowerShell or just enough to get by, this guide will give you what you need to go to take your scripting to the next level. You'll also find this book useful if you're a PowerShell expert looking to expand your knowledge in areas such as PowerShell Security and DevOps.

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.

Over 100 recipes to help you leverage PowerShell to automate Windows Server 2016 manual tasks About This Book Automate Windows server tasks with the powerful features of the PowerShell Language Master new features such as DevOps, containers, and Nano servers, and speed up their performance using PowerShell Improve PowerShell's usability, and control and manage Windows-based environments by working through inviting recipes Who This Book Is For If you are a systems administrator, engineer, or an architect working with Windows Server 2016 and want to automate tasks with PowerShell, then this book is for you. A basic knowledge of PowerShell is expected. What You Will Learn Streamline routine administration processes Improve the performance and storage of your Windows server with enhanced large-scale PowerShell scripts Use DSC to leverage Windows server features Generate automatic reports that highlight unexpected changes in your environment Monitor performance and report on system utilization using detailed graphs and analysis Create and manage a reliable and redundant Hyper-V environment Manage your enterprise's patch level Utilize multiple tools and protocols to manage your environment In Detail This book showcases several ways that Windows administrators can use to automate and streamline their job. You'll start with the PowerShell and Windows Server fundamentals, where you'll become well versed with PowerShell and Windows Server features. In the next module, Core Windows Server 2016, you'll implement Nano Server, manage Windows updates, and implement troubleshooting and server inventories. You'll then move on to the Networking module, where you'll manage Windows network services and network shares. The last module covers Azure and DSC, where you will use Azure on PowerShell and DSC to easily maintain Windows servers. Style and approach This is a practical guide packed with attractive recipes to help you effectively use PowerShell to accelerate your daily administrative tasks with Windows server.

This Microsoft Official Academic Course (MOAC) IT Professional curriculum prepares certification students for success every step of the way. This 70-413 Designing and Implementing a Server Infrastructure exam course is the first of a series of two exams Microsoft Certified

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Solutions Associates (MCSE) candidates are required to pass to gain the MCSE: Windows Server 2012 and Windows Server 2012 R2 certification. These MCSE exams test the skills and knowledge necessary to design, implement, and maintain a Windows Server 2012 infrastructure in an enterprise scaled, highly virtualized environment. Passing these exams confirms students' ability to plan, configure, and implement the Windows Server 2012 services, such as server deployment, server virtualization, and network access and infrastructure. This complete ready-to-teach MOAC program is mapped to all of the exam objectives.

Learn the fundamentals of PowerShell to build reusable scripts and functions to automate administrative tasks with WindowsAbout 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 efficientlyWho This Book Is ForThis 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 moduleIn DetailWindows 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 approachA practical learning guide, complete with plenty of activities, examples and screenshots.

Market_Desc: Primary: Windows administrators--those new to PowerShell and transitioning from Powershell 1.0 to 2.0. Secondary: Developers. Special Features: - GROWING POWERSHELL USERS: PowerShell is the management tool all Windows administrators will have to eventually use, as it is a software requirement for installing Windows Server 2008 R2 (as well as other Microsoft core infrastructure products) and there are administrative tasks that can only be done with PowerShell.- AUTOMATION IS AN IT TREND: Gartner predicts by 2013, 35% of system administration will be automated, and in 2018, there will be a huge and fast shift to automation with 55% of processes being automated.- STRONG AUTHOR PLATFORM: Matthew Hester is an IT Pro Evangelist for Microsoft, is heavily involved with the IT Pro community and has been for over 15 years, and presents to audiences all around the world.- UNIQUE CONTENT: Unlike the competition, this

book provides screen casts for exercises that appear at the end of each chapter. The screen casts presents the exercise solutions, talking and walking the reader step by step through the exercises. (Solutions are available inside the book as well.)

#1SERVER OPERATING SYSTEM: Windows Server is the top network operating system in the world. About The Book: 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.

"Authoritative coverage of the latest version of Microsoft's fastest-selling productImagine being able to perform a task that requires dozens of clicks with just a single command, or automate a series of identical tasks rather than repeat them. This book shows you how to do just that?and more?by using Windows PowerShell cmdlets with SharePoint 2010. Focused on everyday and frequently performed tasks, this invaluable guide provides PowerShell solutions for maintaining a SharePoint environment and explains how more than 500 cmdlets that come with SharePoint 2010 allows you to automate just about anything. Step-by-step instructions walk you through the necessary concepts and real-world examples enhance your learning process. Highlights the ways in which PowerShell cmdlets take the tedium out of executing frequently performed commands in SharePoint 2010 by automating everyday tasks Explains how to install and configure a SharePoint environment Details the steps for deploying and managing Web applications, site collections, authentication, and solution packages Shows you how to manage operational settings and back up and restore data Automating SharePoint 2010 with Windows PowerShell 2.0 helps you save time and effort performing common tasks so that you can be more productive"--

Learn to use PowerShell, Microsoft's scripting language, to automate real-world tasks that IT professionals and system administrators deal with every day. Save Time. Automate. PowerShell® is both a scripting language and an administrative shell that lets you control and automate nearly every aspect of IT. In PowerShell for Sysadmins, five-time Microsoft® MVP "Adam the Automator" Bertram shows you how to use PowerShell to manage and automate your desktop and server environments so that you can head out for an early lunch. You'll learn how to:

- Combine commands, control flow, handle errors, write scripts, run scripts remotely, and test scripts with the PowerShell testing framework, Pester
- Parse structured data like XML and JSON, work with common domains (like Active Directory, Azure, and Amazon Web Services), and create a real-world server inventory script
- Design and build a PowerShell module to demonstrate PowerShell isn't just about ad-hoc scripts
- Use PowerShell to create a hands-off, completely automated Windows deployment
- Build an entire Active Directory forest from nothing but a Hyper-V host and a few ISO files
- Create endless Web and SQL servers with just a few lines of code!

Real-world examples throughout help bridge the gap between theory and actual system, and the author's anecdotes keep things lively. Stop with the expensive software and fancy consultants. Learn how to manage your own environment with PowerShell for Sysadmins and make everyone happy. Covers Windows PowerShell v5.1

Presents a guide on how to use Windows PowerShell to script Windows administrative tasks and control Windows from the command line. Automate Windows server tasks with the powerful features of the PowerShell Language Key Features Leverage PowerShell to automate complex Windows server tasks Master new features such as DevOps, and containers, and speed up their performance using PowerShell

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Improve PowerShell's usability, and control and manage Windows-based environments by working through exciting recipes Book Description Windows Server 2019 represents the latest version of Microsoft's flagship server operating system. It also comes with PowerShell Version 5.1 and has a number of additional features that IT pros find useful. The book helps the reader learn how to use PowerShell and manage core roles, features, and services of Windows Server 2019. You will begin with creating a PowerShell Administrative Environment that has updated versions of PowerShell and the Windows Management Framework, updated versions of the .NET Framework, and third-party modules. Next, you will learn to use PowerShell to set up and configure Windows Server 2019 networking and also managing objects in the AD environment. You will also learn to set up a host to utilize containers and how to deploy containers. You will also be implementing different mechanisms for achieving desired state configuration along with getting well versed with Azure infrastructure and how to setup Virtual Machines, web sites, and shared files on Azure. Finally, you will be using some powerful tools you can use to diagnose and resolve issues with Windows Server 2019. By the end of the book, you will learn a lot of trips and tricks to automate your windows environment with PowerShell What you will learn Perform key admin tasks on Windows Server 2019 Employing best practices for writing PowerShell scripts and configuring Windows Server 2019 Use the .NET Framework to achieve administrative scripting Set up VMs, websites, and shared files on Azure Report system performance using built-in cmdlets and WMI to obtain single measurements Know the tools you can use to diagnose and resolve issues with Windows Server Who this book is for If you are a systems administrator, engineer, or an architect working with Windows Server 2016 interested in upgrading to Windows Server 2019 and automating tasks with PowerShell, then this book is for you. A basic knowledge of PowerShell is expected.

Authoritative coverage of the latest version of Microsoft's fastest-selling product Imagine being able to perform a task that requires dozens of clicks with just a single command, or automate a series of identical tasks rather than repeat them. This book shows you how to do just that?and more?by using Windows PowerShell cmdlets with SharePoint 2010. Focused on everyday and frequently performed tasks, this invaluable guide provides PowerShell solutions for maintaining a SharePoint environment and explains how more than 500 cmdlets that come with SharePoint 2010 allows you to automate just about anything. Step-by-step instructions walk you through the necessary concepts and real-world examples enhance your learning process. Highlights the ways in which PowerShell cmdlets take the tedium out of executing frequently performed commands in SharePoint 2010 by automating everyday tasks Explains how to install and configure a SharePoint environment Details the steps for deploying and managing Web applications, site collections, authentication, and solution packages Shows you how to manage operational settings and back up and restore data Automating SharePoint 2010 with Windows PowerShell 2.0 helps you save time and effort performing common tasks so that you can be more productive.

Market_Desc: SharePoint professionals, new or experienced with PowerShell, who are responsible for deploying or managing SharePoint 2010. Special Features: · HUGE INSTALLED BASE: Over 100 million SharePoint licensees.· STRONG AUTHOR PLATFORM: Written by authors who are active members of the SharePoint community. Shannon Bray is the President of the Colorado State SharePoint User Group and presents at various tradeshow such as TechEd and TechReady. Gary Lapointe is widely recognized for his work with STSADM and PowerShell.· HOT TOPICS: According to CIO Magazine (January 2010), collaboration technologies is among the top 10 areas of interest for IT decision makers. Also, it is widely agreed that Windows PowerShell 2.0 is one of the top 10 features in SharePoint 2010.· PROMISING SIGNS FOR SHAREPOINT 2010 ADOPTION: According to a survey conducted by Metalogix, about 46% of current SharePoint users have plans to migrate to SharePoint 2010 in 2010.· UNIQUE CONTENT: The timing of our book allows real world perspective as well as scripts

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from an author who's expertise is sought out by thousands of SharePoint administrators daily. About The Book: Imagine being able to perform a task that requires dozens of clicks with just a single command, or automate a series of identical tasks rather than repeat them. This book shows you how to do just that and more by using Windows PowerShell cmdlets with SharePoint 2010. Focused on everyday and frequently performed tasks, this invaluable guide provides PowerShell solutions for maintaining a SharePoint environment and explains how more than 500 cmdlets that come with SharePoint 2010 allows you to automate just about anything. Step-by-step instructions walk you through the necessary concepts and real-world examples enhance your learning process.

"In this Advanced Windows PowerShell Scripting training course, expert author Jason Yoder will take you beyond the basics of Windows PowerShell, teaching you how to create cmdlets, create custom views, and much more. This course is designed for users that are already familiar with PowerShell. You will start by learning how to create a script and module. From there, Jason will teach you about advanced objects, the PowerShell pipeline, and PowerShell remoting, including how to enable remoting, one-to-one remoting, and one-to-many remoting. This video tutorial also covers finding sources of information and using external information. Finally, you will learn about automating administration, including background jobs, scheduled jobs, and reporting. Once you have completed this computer based training course, you will have gained an advanced working knowledge of Windows PowerShell. Working files are included, allowing you to follow along with the author throughout the lessons."--Resource description page.

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