

## Windows Powershell Cookbook The Complete Guide To Scripting Microsofts Command Shell

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.

How do you use PowerShell to navigate the filesystem, manage files and folders, or retrieve a web page? This introduction to the PowerShell language and scripting environment provides more than 400 task-oriented recipes to help you solve all kinds of problems. Intermediate to advanced system administrators will find more than 100 tried-and-tested scripts they can copy and use immediately. Updated for PowerShell 5.1 and Open Source PowerShell up to 7.0 and beyond, this comprehensive cookbook includes hands-on recipes for common tasks and administrative jobs that you can apply whether you're on the client or server version of Windows. You also get quick references to technologies used in conjunction with PowerShell, including regular expressions, the XPath language, format specifiers, and frequently referenced .NET, COM, and WMI classes. Learn how to use PowerShell on Windows 10 and Windows Server 2019 Tour PowerShell's core features, including the command model, object-based pipeline, and ubiquitous scripting Master fundamentals such as the interactive shell, pipeline, and object concepts Perform common tasks that involve working with files, internet-connected scripts, user interaction, and more Solve tasks in systems and enterprise management, such as working with Active Directory and the filesystem

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

Over 150 real-world recipes to simplify database management, automate repetitive tasks, and enhance your productivity About This Book • This book helps you build a strong foundation to get you comfortable using PowerShell with SQL Server, empowering you to create more complex scripts for your day-to-day job • The book provides numerous guidelines, tips, and explanations on how and when to use PowerShell cmdlets, WMI, SMO, .NET classes, or other components • It offers easy-to-follow, practical recipes to help you get the most out of SQL Server and PowerShell Who This Book Is For If you are a SQL Server database professional (DBA, developer, or BI developer) who wants to use PowerShell to automate, integrate, and simplify database tasks, this book is for you. Prior knowledge of scripting would be helpful, but it is not necessary. What You Will Learn • Explore database objects and execute queries on multiple servers • Manage and monitor the running of SQL Server services and accounts • Back up and restore databases • Create an inventory of database properties and server configuration settings • Maintain permissions and security for users • Work with CLR assemblies, XML, and BLOB objects in SQL • Manage and deploy SSIS packages and SSRS reports In Detail PowerShell can be leveraged when automating and streamlining SQL Server tasks. PowerShell comes with a rich set of cmdlets, and integrates tightly with the .NET framework. Its scripting capabilities are robust and flexible, allowing you to simplify automation and integration across different Microsoft applications and components. The book starts with an introduction to

the new features in SQL Server 2014 and PowerShell v5 and the installation of SQL Server. You will learn about basic SQL Server administration tasks and then get to know about some security-related topics such as the authentication mode and assigning permissions. Moving on, you will explore different methods to back up and restore your databases and perform advanced administration tasks such as working with Policies, Filetables, and SQL audits. The next part of the book covers more advanced HADR tasks such as log shipping and data mirroring, and then shows you how to develop your server to work with BLOB, XML, and JSON. Following on from that, you will learn about SQL Server's BI stack, which includes SSRS reports, the SSIS package, and the SSAS cmdlet and database. Snippets not specific to SQL Server will help you perform tasks quickly on SQL servers. Towards the end of the book, you will find some useful information, which includes a PowerShell tutorial for novice users, some commonly-used PowerShell and SQL Server syntax, and a few online resources. Finally, you will create your own SQL Server Sandbox VMs. All these concepts will help you to efficiently manage your administration tasks. Style and approach SQL Server 2014 with PowerShell v5 Cookbook is an example-focused book that provides step-by-step instructions on how to accomplish specific SQL Server tasks using PowerShell. Each recipe is followed by an analysis of the steps or design decisions taken and additional information about the task at hand. Working scripts are provided for all examples so that you can dive in right away. You can read this book sequentially by chapter or you can pick and choose which topics you need right away.

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

Make the most of PowerShell's features to manage all aspects of your Exchange Server 2016 environment. About This Book Learn to integrate PowerShell with Exchange Server 2016 Write scripts and functions to run tasks automatically, and generate complex reports with PowerShell Use these effective recipes to learn all popular and important Powershell scripts to manage tasks and avoid errors Who This Book Is For This book is for messaging professionals who want to build real-world scripts with Windows PowerShell and the Exchange Management Shell. You'll also find it indispensable if you're a network or systems

administrator responsible for managing and maintaining Exchange Server 2016. What You Will Learn Master the new features and capabilities of PowerShell and Exchange Server 2016 Get to grips with the core PowerShell concepts Use simple PowerShell scripts and commands to get powerful results Generate detailed reports, send the output of commands by email , and schedule scripts to run automatically Import, export, and move mailboxes, and delete messages from mailboxes using the command line Configure transport server settings such as mail relay, tracking logs, transport rules, delivery reports, and more Manage mailbox and public folders Monitor the health of an Exchange environment through built-in cmdlets and other methods Integrate Exchange with Office Online Server, Skype for Business Server, and Exchange Online (Office 365) In Detail We start with a set of recipes on core PowerShell concepts. This will provide you with a foundation for the examples in the book. Next, you'll see how to implement some of the common exchange management shell tasks, so you can effectively write scripts with this latest release. You will then learn to manage Exchange recipients, automate recipient-related tasks in your environment, manage mailboxes, and understand distribution group management within the Exchange Management Shell. Moving on, we'll work through several scenarios where PowerShell scripting can be used to increase your efficiency when managing databases, which are the most critical resources in your Exchange environment. Towards the end, you'll discover how to achieve Exchange High Availability and how to secure your environment, monitor the health of Exchange, and integrate Exchange with Office Online Server, Skype for Business Server, and Exchange Online (Office 365). By the end of the book, you will be able to perform administrative tasks efficiently. Style and approach This practical guide is packed with handy recipes to help you perform common administration tasks, as well as complex tasks in Exchange Server, without any hassle.

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.

If you are looking to automate repetitive tasks in Active Directory management using the PowerShell module, then this book is for

you. Any experience in PowerShell would be an added advantage.

Summary Discover how scripting is different from command-line PowerShell, as you explore concrete hands-on examples in this handy guide. The book includes and expands on many of the techniques presented in Learn PowerShell Toolmaking in a Month of Lunches. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Automate it! With Microsoft's PowerShell language, you can write scripts to control nearly every aspect of Windows. Just master a few straightforward scripting skills, and you'll be able to eliminate repetitive manual tasks, create custom reusable tools, and build effective pipelines and workflows. Once you start scripting in PowerShell, you'll be amazed at how many opportunities you'll find to save time and effort. About the Book Learn PowerShell Scripting in a Month of Lunches teaches you how to expand your command-line PowerShell skills into effective scripts and tools. In 27 bite-size lessons, you'll discover instantly useful techniques for writing efficient code, finding and squashing bugs, organizing your scripts into libraries, and much more. Advanced scripters will even learn to access the .NET Framework, store data long term, and create nice user interfaces. What's Inside Designing functions and scripts Effective pipeline usage Dealing with errors and bugs Professional-grade scripting practices About the Reader Written for devs and IT pros comfortable with PowerShell and Windows. About the Authors Don Jones is a PowerShell MVP, speaker, and trainer who has written dozens of books on information technology topics. Jeffery Hicks is a PowerShell MVP and an independent consultant, trainer, and author. Don and Jeff coauthored Manning's Learn Windows PowerShell in a Month of Lunches, Learn PowerShell Toolmaking in a Month of Lunches, and PowerShell in Depth. Table of Contents PART 1 - INTRODUCTION TO SCRIPTING Before you begin Setting up your scripting environment WWPDP: what would PowerShell do? Review: parameter binding and the PowerShell pipeline Scripting language crash course The many forms of scripting (and which to use) Scripts and security PART 2 - BUILDING A POWERSHELL SCRIPT Always design first Avoiding bugs: start with a command Building a basic function and script module Going advanced with your function Objects: the best kind of output Using all the pipelines Simple help: making a comment Dealing with errors Filling out a manifest PART 3 - GROWN-UP SCRIPTING Changing your brain when it comes to scripting Professional-grade scripting An introduction to source control with git Pestering your script Signing your script Publishing your script PART 4 - ADVANCED TECHNIQUES Squashing bugs Making script output prettier Wrapping up the .NET Framework Storing data-not in Excel! Never the end

How do you use PowerShell to navigate the filesystem, manage files and folders, or retrieve a web page? This introduction to the PowerShell language and scripting environment provides more than 400 task-oriented recipes to help you solve all kinds of problems. Intermediate to advanced system administrators will find more than 100 tried-and-tested



scripts they can copy and use immediately. Updated for PowerShell 5, Open Source PowerShell up to 7 and beyond, this comprehensive cookbook includes hands-on recipes for common tasks and administrative jobs that you can apply whether you're on the client or server version of Windows. You also get quick references to technologies used in conjunction with PowerShell, including format specifiers and frequently referenced registry keys to selected .NET, COM, and WMI classes. Learn how to use PowerShell on Windows 10 and Windows Server 2019 Tour PowerShell's core features, including the command model, object-based pipeline, and ubiquitous scripting Master fundamentals such as the interactive shell, pipeline, and object concepts Perform common tasks that involve working with files, Internet-connected scripts, user interaction, and more Solve tasks in systems and enterprise management, such as working with Active Directory and the filesystem

This Cookbook by Windows PowerShell team developer Lee Holmes provides hundreds of tested scripts that you can use right away to get Microsoft's new tool working for you. More than 150 recipes, combined with a concise task-based introduction to the Windows PowerShell scripting language and environment, make it the perfect look-up guide when you encounter a thorny problem, or need a quick solution. The ideal companion to any tutorial or reference, this book meets the needs of system administrators at any level. Microsoft has revolutionized the world of system management and command-line shells with its release of Windows PowerShell, and Lee Holmes gives you practical tools and inside advice that will make you a more productive user and administrator. You will be able to solve everything from automating routine tasks, working with files, event logs and other forms of structured data, to managing the users and resources of complex Windows networks. Each recipe includes a focused piece of code plus discussion of how and why it works, so that you can apply the solution to similar tasks. You get an array of recipes covering PowerShell fundamentals, common tasks, and administrator tasks, including: Pipelines, variables, objects, looping and flow control, strings and unstructured text, calculations and math Simple files; structured files; Internet-enabled scripts; code reuse; lists, arrays and hashtables; user feedback; error management; environmental awareness; script signing; and more Files and directories, registry manipulation, comparing data, event logs, process cmdlets, service cmdlets, Active Directory, enterprise computer management, and more Those who administer Microsoft's Exchange 2007 and System Center Operations Manager (formerly MOM) will also benefit from this book, with separate chapters devoted to these servers. All Windows administrators will appreciate the appendices that include a PowerShell language quick reference, and a reference to the .NET, WMI and COM objects that PowerShell scripters will use often. With working scripts, tutorials, and references all in one volume, Windows PowerShell Cookbook will turbocharge the productivity of any Windows administrator.

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

line.

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

Learn the intricacies of managing Azure AD, Azure AD Connect as well as Active Directory for administration on cloud and Windows Server 2019 Key Features Expert solutions for the federation, certificates, security, and monitoring with Active Directory Explore Azure AD and AD Connect for effective administration on cloud Automate security tasks using Active Directory and PowerShell Book Description Active Directory is an administration system for Windows administrators to automate network, security and access management tasks in the Windows infrastructure. This book starts off with a detailed focus on forests, domains, trusts, schemas and partitions. Next, you learn how to manage domain controllers, organizational units and the default containers. Going forward, you deep dive into managing Active Directory sites as well as identifying and solving replication problems. The next set of chapters covers the different components of Active Directory and discusses the management of users, groups and computers. You also go through recipes that help you manage your Active Directory domains, manage user and groups objects and computer accounts, expiring group memberships and group Managed Service Accounts with PowerShell. You learn how to work with Group Policy and how to get the most out of it. The last set of chapters covers federation, security and monitoring. You will also learn about Azure Active Directory and how to integrate on-premises Active Directory with Azure AD. You learn how Azure AD Connect synchronization works, which will help you manage Azure AD. By the end of the book, you have

learned in detail about Active Directory and Azure AD, too. What you will learn Manage new Active Directory features, such as the Recycle Bin, group Managed Service Accounts, and fine-grained password policies Work with Active Directory from the command line and use Windows PowerShell to automate tasks Create and remove forests, domains, and trusts Create groups, modify group scope and type, and manage memberships Delegate control, view and modify permissions Optimize Active Directory and Azure AD in terms of security Who this book is for This book will cater to administrators of existing Active Directory Domain Services environments and/or Azure AD tenants, looking for guidance to optimize their day-to-day effectiveness. Basic networking and Windows Server Operating System knowledge would come in handy.

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

Do you know how to use Windows PowerShell to navigate the filesystem and manage files and folders? Or how to retrieve a web page? This introduction to the PowerShell language and scripting environment provides more than 430 task-oriented recipes to help you solve the most complex and pressing problems, and includes more than 100 tried-and-

tested scripts that intermediate to advanced system administrators can copy and use immediately. You'll find hands-on tutorials on fundamentals, common tasks, and administrative jobs that you can apply whether you're on a client or server version of Windows. You also get quick references to technologies used in conjunction with PowerShell, including format specifiers and frequently referenced registry keys to selected .NET, COM, and WMI classes. With Windows PowerShell Cookbook, you'll get more done in less time. Take a tour of PowerShell's core features, including the command model, object-based pipeline, and ubiquitous scripting. Learn PowerShell fundamentals such as the interactive shell and fundamental pipeline and object concepts. Perform common tasks that involve working with files, Internet-connected scripts, user interaction, and more. Solve tasks in systems and enterprise management, such as working with Active Directory, the filesystem, registry, event logs, processes, and services.

This book is written in a Cookbook-style format and provides practical, immediately usable task-based recipes that show you how to manage and maintain your Microsoft Exchange Server 2013 environment with Windows PowerShell 3. Each chapter of the book is written so that it can be used as a desktop reference, or it can be read from beginning to end, allowing you to build a solid foundation for building scripts in your Exchange environment. This Cookbook is for messaging professionals who want to learn how to build real-world scripts with Windows PowerShell 3 and the Exchange Management Shell. If you are a network or systems administrator responsible for managing and maintaining Exchange Server 2013 you will find this highly useful. Only basic knowledge of Exchange Server and PowerShell are required to make the most of this book.

"Portable help for PowerShell scripters"--Cover.

"Windows Server 2012 Hyper-V Cookbook" is a practical cookbook packed with recipes showing and explaining all the features and components of Hyper-V. You'll learn from best practices, tips and tricks and examples of how to automate daily and common tasks. If you are an administrator who wants to master Microsoft Server Virtualization with Windows Server 2012 Hyper-V, then this book is for you. You should be comfortable with virtualization concepts and practices, and knowledge of previous versions of Windows Server would be an advantage.

This cookbook will help you gain command of PowerShell 7.1 to manage the core roles, features, and services within Windows Server 2022 and 2019. Thomas Lee provides an expansive view of the functionality made possible in PowerShell's latest major release.

"SQL Server 2012 with PowerShell V3 Cookbook" is an example-focused book that provides step-by-step instructions on how to accomplish specific SQL Server tasks using PowerShell. Each recipe is followed by an analysis of the steps or design decisions taken, and additional information about the task at hand. Working scripts are provided for all examples so that you can dive in right away. You can read this book sequentially by chapter, or you can pick and choose which topics you need right away. This book is written for the SQL Server database professional (DBA, developer, BI developer) who wants to use PowerShell to automate, integrate, and simplify database tasks. A little bit of scripting background is helpful, but not necessary.

WHAT IS POWERSHELL? Windows PowerShell is an item situated robotization motor and scripting language. It is primarily aimed at system administrators. It causes IT experts, to control and mechanize the administration of the Windows operating system and other applications.



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While many casual users know about the Command Prompt, only a few have heard about Windows PowerShell. PowerShell is a much more powerful tool than the Command Prompt. It is also intended to replace the Command Prompt, as it delivers more power and control over the Windows operating system. Windows PowerShell is a shell initially developed by Microsoft for the purposes of task automation and configuration management. PowerShell is now an open source project, and it can be installed on Windows, macOS, and Linux platforms. This shell is based on the .NET framework, and it includes a command-line shell and a scripting language. POWERSHELL FOR BEGINNERS contains chapters on... HISTORY OF POWERSHELL LEARNING POWERSHELL FROM THE START WHAT IS POWERSHELL USE THE DIFFERENCE BETWEEN POWERSHELL AND CMD POWERSHELL PROVIDERS AND MODULES WHAT MAKES A POWERSHELL OBJECT? ENTRANCE TO THE CONSTRUCTION SITE UNDERSTANDING OF POWERSHELL FOREACH LOOP AND FOREACH-OBJECT WINDOWS POWERSHELL PROVIDERS. Who is this book for? Windows PowerShell is an incredibly powerful tool that is included in Windows, and that is available for many other operating systems. It brings many benefits to power-users and IT professionals. However, casual users can benefit from using it too. The knowledge and skills that you gain from this book can allow you to grasp the basics of windows Powershell scripting. Powershell For Beginners is extensively researched and documented and will prove extremely effective at preparing you to begin an exciting new career as a computer systems administrator or even to improve the day to day running of the pc's on your home network... What are you waiting for? Take Action TODAY! Grab your copy of POWERSHELL FOR BEGINNERS NOW...

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

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 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

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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.

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, 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

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.

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 updated and expanded second edition of the Windows PowerShell Cookbook: The Complete Guide to Scripting Microsoft's Command provides a user-friendly introduction to the subject Taking a clear structural framework, it guides the reader through the subject's core elements. A flowing writing style combines with the use of illustrations and diagrams throughout the text to ensure the reader understands even the most complex of concepts. This succinct and enlightening

overview is a required reading for all those interested in the subject . We hope you find this book useful in shaping your future career & Business.

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.

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 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.

Manage and maintain your Microsoft Exchange 2010 environment with Windows PowerShell 2.0 and the Exchange Management Shell.

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 POWERSHELL Are you looking for an easy way to simplify and automate administration of all your Microsoft products? You can't go wrong with Windows PowerShell, one of the most powerful scripting languages ever devised! PowerShell makes it easy to retrieve data about your system settings, manage your services, change objects and much more; learning it now will help you to reduce how much time you have to spend, or waste as the case may be, on admin functions and all without the need to purchase expensive tools or services from elsewhere. This book aims to serve as a comprehensive beginner's guide to PowerShell, and details all you need to know to begin using it effectively and efficiently.

Make use of hands-on recipes for many tasks that are typically encountered in both the on-premises as well as the cloud world. Key Features A recipe-based guide to help you build effective administrative solutions Gain hands-on experience with the newly added features of PowerShell Core Manage critical business environments with professional scripting practices Book Description This book will follow a recipe-based approach and start off with an introduction to the fundamentals of PowerShell, and explaining how to install and run it through simple examples. Next, you will learn how to use PowerShell to access and manipulate data and how to work with different streams as well. You will also explore the object model which will help with regard to PowerShell function deployment. Going forward, you will get familiar with the pipeline in its different use cases. The next set of chapters will deal with the different ways of accessing data in PowerShell. You will also



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learn to automate various tasks in Windows and Linux using PowerShell Core, as well as explore Windows Server. Later, you will be introduced to Remoting in PowerShell Core and Just Enough Administration concept. The last set of chapters will help you understand the management of a private and public cloud with PowerShell Core. You will also learn how to access web services and explore the high-performance scripting methods. By the end of this book, you will gain the skills to manage complex tasks effectively along with increasing the performance of your environment. What you will learn Leverage cross-platform interaction with systems Make use of the PowerShell recipes for frequent tasks Get a better understanding of the inner workings of PowerShell Understand the compatibility of built-in Windows modules with PowerShell Core Learn best practices associated with PowerShell scripting Avoid common pitfalls and mistakes Who this book is for This book will be for windows administrators who want to enhance their PowerShell scripting skills to the next level. System administrators wanting to automate common to complex tasks with PowerShell scripts would benefit from this book. Prior understanding on PowerShell would be necessary.

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.

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.

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

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from the book to automate your servers. Style and approach A practical learning guide, complete with plenty of activities, examples and screenshots.

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.

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