

# PowerShell And WMI

Eventually, you will extremely discover a additional experience and expertise by spending more cash. nevertheless when? pull off you recognize that you require to get those every needs later having significantly cash? Why dont you attempt to get something basic in the beginning? Thats something that will lead you to understand even more something like the globe, experience, some places, next history, amusement, and a lot more?

It is your agreed own time to pretend reviewing habit. among guides you could enjoy now is **PowerShell And WMI** below.

## **Windows PowerShell** - Don Jones 2006

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

## **Enterprise PowerShell Scripting Bootcamp** - Brenton J.W. Blawat 2017-05-18

The quick start guide for an advanced enterprise PowerShell framework About This Book Introduces industry-proven techniques that improve script efficiency and reliability Example-rich guide based on real-world scenarios Facilitates building a script that can fully scan a Windows server and identify components Who This Book Is For This book is for IT professionals and Windows administrators who would like to gain intensive, hands-on knowledge and skills on PowerShell without spending hours and hours in learning. If you have been struggling to find the time to gain proficiency and confidence with PowerShell and everyday scripting tasks What You Will Learn Create an advanced PowerShell scripting template that provides repeatable code to jumpstart all of your scripting projects Learn how to securely encrypt and store usernames, passwords, and other sensitive data in PowerShell scripts and answer files Understand how to optimize the performance of scripts to help process large datasets quickly and avoid time-consuming mistakes Develop a script to scan for non-standard Windows Server

configurations and identify service accounts used on Windows Servers Gather a large list of data from a Windows server without locally or remotely logging in interactively In Detail Enterprise PowerShell Scripting Bootcamp explains how to create your own repeatable PowerShell scripting framework. This framework contains script logging methodologies, answer file interactions, and string encryption and decryption strategies. This book focuses on evaluating individual components to identify the system's function, role, and unique characteristics. To do this, you will leverage built-in CMDlets and Windows Management Instrumentation (WMI) to explore Windows services, Windows processes, Windows features, scheduled tasks, and disk statistics. You will also create custom functions to perform a deep search for specific strings in files and evaluate installed software through executable properties. We will then discuss different scripting techniques to improve the efficiency of scripts. By leveraging several small changes to your code, you can increase the execution performance by over 130%. By the end of this book, you will be able to tie all of the concepts together in a PowerShell-based Windows server scanning script. This discovery script will be able to scan a Windows server to identify a multitude of components. Style and approach This book is all about fast and intensive learning. This means, we don't waste time in helping readers get started. The new content is about leveraging highly-effective examples to build new things, help solving problems in newer and

unseen ways, and providing an enterprise-ready platform to create PowerShell Scripts.

[Mastering Windows PowerShell Scripting](#) - Chris Dent 2017-10-27

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.

**Windows PowerShell Step by Step** - Ed Wilson 2015-10-27

This is today's definitive hands-on guide to automating Windows setup, deployment, and management with Windows PowerShell. Microsoft senior consultant Ed Wilson ("The Scripting Guy") fully illuminates every key PowerShell technique -- especially the major improvements and new cmdlets introduced with PowerShell 5.0. Wilson's positive and humorous approach has made him one of the world's most popular PowerShell instructors. His practical examples and insights will help you maximize productivity and quality in all your IT operations, and integrate automated workflows throughout any traditional or cloud environment. Windows PowerShell Step by Step, Third Edition offers more labs and structured learning exercises than any other PowerShell 5.0 tutorial. Wilson guides you step-by-step through building every script he demonstrates. He reinforces key concepts with step-by-step exercises, including "One Step Further" exercises that deepen your understanding, so you can solve your unique problems. All examples and starter files are downloadable at the TechNet Script Center Script Repository. Coverage includes: Basic PowerShell concepts and cmdlets Key providers: Alias, Certificate, Environment, File System, Function, Registry, Variable, and WSMAN Remoting, jobs, scripts, functions, and modules Windows PowerShell ISE and snippets Creating, organizing, and running PowerShell profiles WMI: objects, namespaces, providers, classes, and queries Remoting WMI and calling WMI methods via CIM Automating Active Directory and AD Domain Services Debugging scripts and handling errors Defining complex workflows Using Desired State Configuration (DSC) to quickly enforce or restore configuration settings Finding and using the PowerShell Gallery's powerful new resources Each chapter concludes with a convenient quick reference, and Wilson

presents detailed appendices on coding conventions and regular expressions. If you're upgrading from any earlier version of PowerShell, a new "Start Here" section identifies the most valuable PowerShell features you haven't already learned, so you can focus your efforts where they'll make you most productive.

*Essential PowerShell* - Holger Schwichtenberg 2008-06-19

Use PowerShell to Streamline and Automate Your Most Time-Consuming Windows Administration Tasks With Windows PowerShell, Microsoft brings innovative console-based system administration and scripting to Windows clients and servers. PowerShell combines the best features of traditional UNIX shells with the immense power of the .NET Framework, offering a consistent and easy-to-use replacement for both the Windows command line and the Windows Script Host. In *Essential PowerShell*, noted expert Holger Schwichtenberg gives Windows sysadmins all the knowledge and sample scripts they need to successfully administer production systems with PowerShell. Schwichtenberg begins by introducing the innovative PowerShell architecture, along with crucial PowerShell concepts such as pipelining and navigation. Next, he introduces the PowerShell Script Language, shows the secure execution of command sequences as scripts, and demonstrates how to use PowerShell to access essential operating system interfaces such as COM, WMI, ADSI, and ADO.NET. After you've mastered the fundamentals, Schwichtenberg presents an extensive collection of PowerShell solutions for virtually every area of day-to-day administration. For each topic, he presents dozens of self-contained examples, all downloadable from a companion Web site. He covers both Microsoft's standard PowerShell commandlets and the free commandlets available as PowerShell Community Extensions. He also presents a full chapter of tips, tricks, and troubleshooting solutions. Coverage includes Understanding PowerShell's components and features Setting up your PowerShell scripting environment Creating and using commandlets Using object-oriented pipelining for filtering, sorting, grouping, comparisons, calculations, and more Mastering PowerShell's uniform navigation model and using it with all types of data Programming command sequences

with the PowerShell Script Language Making the most of the PowerShell console and third-party tools Managing processes, event logs, and registry entries Controlling networking, printing, and software installation Manipulating Active Directory and other enterprise services with PowerShell Using PowerShell to enforce stronger system and network security Storing data in files, documents, and databases Preface xv Part I: Getting Started with PowerShell 1: First Steps with Windows PowerShell 3 2: Commandlets 25 3: Pipelining 43 4: Advanced Pipelining 59 5: The PowerShell Navigation Model 81 6: The PowerShell Script Language 89 7: PowerShell Scripts 115 8: Using Class Libraries 129 9: PowerShell Tools 151 10: Tips, Tricks and Troubleshooting 171 Part II: Windows PowerShell in Action 11: File Systems 205 12: Documents 235 13: Registry and Software 253 14: Processes and Services 267 15: Computers and Hardware 281 16: Networking 295 17: Directory Services 313 18: User and Group Management in the Active Directory 335 19: Searching in the Active Directory 349 20: Additional Libraries for Active Directory Administration 361 21: Databases 373 22: Advanced Database Operations 389 23: Security Settings 401 24: Advanced Security Administration 413 Part III: Appendices Appendix A: PowerShell Commandlet Reference 429 Appendix B: PowerShell 2.0 Preview 445 Appendix C: Bibliography 449 Index 453

**Mastering PowerShell Scripting** - Chris Dent 2021-06-29

This complete guide takes you on a tour of PowerShell from the basics to its advanced functionality, helping you automate your tedious and time-consuming system admin tasks 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, but working with them can be daunting. Mastering PowerShell Scripting takes away the fear and helps you 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. You'll need to know the basics of operating systems, but beginners with no prior experience with PowerShell will have no trouble following along.

Windows PowerShell in Action - Bruce Payette 2011

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

PowerShell 7 for IT Professionals - Thomas Lee 2020-12-22

Take advantage of everything Microsoft's new PowerShell 7 has to offer PowerShell 7 for IT Pros is your guide to using PowerShell 7, the open source, cross-platform version of Windows PowerShell. Windows IT professionals can begin setting up automation in PowerShell 7, which features many improvements over the early version of PowerShell Core and Windows PowerShell. PowerShell 7 users can enjoy the high level of compatibility with the Windows PowerShell modules they rely on today. This book shows IT professionals—especially Windows administrators

and developers—how to use PowerShell7 to engage in their most important tasks, such as managing networking, using AD/DNS/DHCP, leveraging Azure, and more. To make it easy to learn everything PowerShell 7 has to offer, this book includes robust examples, each containing sample code so readers can follow along. Scripts are based on PowerShell 7 running on Windows 10 19H1 or later and Windows Server 2019. • Learn to navigate the PowerShell 7 administrative environment • Use PowerShell 7 to automate networking, Active Directory, Windows storage, shared data, and more • Run Windows Update, IIS, Hyper-V, and WMI and CIM cmdlets within PowerShell 7 • Understand how to handle reporting in the new PowerShell 7 environment PowerShell 7 for IT Pros provides exclusive coverage of using PowerShell with both cloud-based systems and virtualized environments (Hyper V and Azure). Written by PowerShell veteran Thomas Lee, this is the only book you'll need to get started with PowerShell 7.

**Windows PowerShell Cookbook** - Lee Holmes 2010-08-13

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

**Developing WMI Solutions** - Craig Tunstall 2003

Covers the installation and components of WMI, its interactions and subsystems, query language facilities, class schemas, method design, and developing management and .NET management applications.

*Windows PowerShell Step by Step* - Ed Wilson 2015-10-13

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

[Learn PowerShell Scripting in a Month of Lunches](#) - Don Jones

2017-11-11

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 WWPd: 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

*Professional Windows PowerShell* - Andrew Watt 2007-07-17

MSH is a new command-line shell for Microsoft server products, including the long-awaited Longhorn server, and will eventually ship with all major Microsoft products, making it the must-know technology MSH will replace current command lines in new Microsoft products and can be used to write shell scripts similar to those used with Unix and Linux. Discusses how MSH enables all of the .NET Framework objects to become accessible via scripting, making it a very powerful addition to any developer's or administrator's toolbox. Readers are guided through all the ins and outs of MSH and learn how to create powerful solutions; run scripts, programs, and commands; customize the MSH environment; handle data; manage files and disks; and script solutions and .NET objects.

**Windows PowerShell 2 For Dummies** - Steve Seguis 2009-08-10

Prepare for the future of Microsoft automation with this no-nonsense guide. Windows PowerShell 2 is the scripting language that enables automation within the Windows operating system. Packed with powerful new features, this latest version is complex, and Windows PowerShell 2 For Dummies is the perfect guide to help system administrators get up to speed. Written by a Microsoft MVP with direct access to the program managers and developers, this book covers every new feature of Windows PowerShell 2 in a friendly, easy-to-follow format. Windows PowerShell 2 is the updated scripting language that enables system administrators to automate Windows operating systems. System administrators with limited scripting experience will find this book helps them learn the fundamentals of Windows PowerShell 2 quickly and easily. Translates the jargon and complex syntax of Windows PowerShell 2. Covers script debugging improvements, the ability to invoke commands remotely, and the new user interface. Uses real-world applications to clarify the theory, fundamentals, and techniques of the scripting

language. Written by a Microsoft MVP with direct access to the developers of Windows PowerShell 2, Windows PowerShell 2 For Dummies makes this tool easily accessible to administrators of every experience level.

**Windows PowerShell in 24 Hours, Sams Teach Yourself** - Timothy L. Warner 2015-05-02

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

other Windows servers Master PowerShell skills needed to earn many Microsoft certifications

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

PowerShell and WMI - Richard Siddaway 2012-05-10

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

**Windows Server 2019 Automation with PowerShell Cookbook** - Thomas Lee 2019-02-28

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 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.

Windows PowerShell Unleashed - Tyson Kopczynski 2008-12-04 PowerShell gives Windows administrators immense power to automate and customize virtually any administrative task—saving time, increasing productivity, and giving you unprecedented flexibility. PowerShell 2.0 adds important new features that offer even greater control over Windows environments. Windows PowerShell Unleashed will not only give you deep mastery over PowerShell but also a greater understanding of the features being introduced in PowerShell 2.0—and show you how to use it to solve your challenges in your production environment. The authors begin by systematically illuminating PowerShell's core concepts and techniques, helping you leverage whatever Windows scripting experience you may already have. Next, using complete, easy-to-adapt examples, they show how to use PowerShell to manage file systems, permissions, the Registry, WMI objects, Active Directory, Exchange Server, and many other elements of the Windows environment. More than half of this edition's material and examples have been completely rewritten for PowerShell 2.0, and the authors have added seven entirely new chapters—covering security, PowerShell application development, Systems Center Operations Manager 2007, and much more. Whatever Windows systems you manage, Windows PowerShell Unleashed contains the scripts and techniques you need to manage them far more effectively. Install, configure, and customize PowerShell 2.0 and master its command line interface Discover proven best practices for PowerShell scripting Make the most of PowerShell cmdlets—especially the new cmdlets included in PowerShell 2.0 Leverage PowerShell's deep .NET Framework integration Secure your scripts using code signing, execution policies, and PowerShell's built-in security Use custom script functions to manage permissions more efficiently Control the registry locally and remotely and use PowerShell's powerful new registry transactions Use PowerShell as a management interface Automate Exchange Server 2007 administrative tasks Automate the management of Microsoft's new System Center Operations Manager 2007 Preview the forthcoming Graphical PowerShell scripting environment Understand how to manage Active Directory using PowerShell Master using PowerShell with WMI

Learn PowerShell 2.0 remoting

**Windows PowerShell Cookbook** - Lee Holmes 2010-08-20

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.

*PowerShell Cookbook* - Lee Holmes 2021-06-16

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 2.0 Best Practices** - Ed Wilson 2009-12-16

Apply best practices for automating system administration with Windows PowerShell 2.0 and optimize your operational efficiency and results. This guide captures the field-tested tips, real-world lessons, and candid advice of practitioners across the range of business and technical scenarios and across the scripting life cycle. Discover how to: Take advantage of new features and cmdlets in Windows PowerShell 2.0. Plan scripting usage

scenarios and define standards. Deploy Windows PowerShell 2.0 to desktops and servers. Configure scripting environments. Optimize remote scripting capabilities. Work with Active Directory and WMI. Design functions and modules. Optimize input and output. Handle errors. Document scripts. Test and troubleshoot scripts. Avoid scripting pitfalls. The companion CD includes a fully searchable eBook and sample scripts. For customers who purchase an ebook version of this title, instructions for downloading the CD files can be found in the ebook.

*Windows Management Instrumentation (WMI)* - Matthew M. Lavy 2001. Annotation: Learn to design and implement sophisticated management solutions in Windows 2000 using WMI. All the WMI topics and examples are illustrated with fully functional real-world script examples that can be used as is on the reader's network. Lavy and Meggitt are widely recognized as WMI gurus. The material takes readers from a fundamental understanding of WMI and empowers them with the ability to design and implement their own sophisticated management solutions. Windows Management Instrumentation (WMI) is a new technology from Microsoft that has the potential to transform the administration of windows-based networks. System administrators will seek detailed, hands-on advice on using this revolutionary tool. This book tells readers everything they need to know in order to harness the power of WMI to automate vast parts of Windows 2000 workstation and server management. Starting with the absolute basics, teaching the fundamentals of WMI terminology and the VBScript programming language. By the time readers complete the book, the readers will have the ability not only to use the scripts supplied, but also have a good understanding both of WMI and VBScript. Scripts from the book and tools referenced by the authors will be available at: [www.newriders.com](http://www.newriders.com). Matthew Lavy, MA, MPhil, ARCM, LTCL, is Technical Systems Developer at Jesus College, Cambridge University. His main responsibilities are developing solutions for UNIX / NT systems integration and providing technical support to Windows 2000 systems administrators. He has been both an author and technical reviewer for the O'Reilly Windows NT series, and is a member of the Cambridge University Windows 2000

technical strategy group. Ashley Meggitt. MSc, is IT Manager for Jesus College, Cambridge University, responsible for the management of the IT Department and for formulating the College's long-term IT strategy. He is the co-author of two books on Windows NT system administration, both published by O'Reilly, for whom he has also acted as a technical reviewer.

**Learn Powershell Core 6.0** - David Das Neves 2018-07-26

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.

**Deploying and Managing Active Directory with Windows PowerShell** - Charlie Russel 2015-06-11

Streamline and modernize the way you manage Active Directory Use Windows PowerShell to simplify and accelerate Active Directory domain controller management, whether you're running Active Directory entirely in the cloud, on-premises, or in a hybrid environment. In this concise reference, Microsoft MVP Charlie Russel presents the commands, tested scripts, and best-practice advice you need to deploy and run Active Directory in a modern environment and to migrate smoothly to cloud or hybrid deployments wherever they offer more value. Supercharge your productivity as an Active Directory administrator Get proven scripts that leverage the power of Windows Server 2012 and Windows Management Framework 4.0 and 5.0 Deploy forests and Active Directory Domain Services (AD DS) Manage DNS and DHCP Create and manage users and groups Deploy additional domain controllers, read-only domain controllers (RODCs), and domains Implement and manage fine-grained password policies Perform fast, reliable backups and restores Quickly extend on-premises Active Directory deployments to the cloud Efficiently manage roles and sites

*PowerShell and WMI* - Richard Siddaway 2012-04-29

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

**Troubleshooting Windows Server with PowerShell** - Derek Schauland 2016-04-29

This book shows you how to use PowerShell to quickly pinpoint, diagnose, and solve problems with your Windows Server environment, reducing the need for external tools, and ensuring you stay up-to-date with PowerShell as it quickly becomes one of the most useful tools in an administrator's toolkit. Authors Derek Schauland and Donald Jacobs take you through a range of examples, showing you how to gather information from different computer sources. Whether you are logged into the server locally or just wanting to check the status of a server from your local computer, the right PowerShell cmdlets can give you a lot of information quickly, and allow you to troubleshoot your servers from the command

line with little interaction with the server's desktop. In this book, you'll learn how PowerShell can help you: Understand PowerShell versus the GUI Gather information from Windows event logs Gather information from your server, including memory, hardware configurations, and disk space available Find out what applications are installed on a server Find out which Windows updates have been installed on your computer Check the processes running on your computer and gather information about them, or start and stop them from the command line Quickly check if services are running, and stop or start them as needed Who This Book Is For Windows Administrators, IT Professionals and support personnel needing ways to quickly find and troubleshoot issues in their environment using the included tools. Those entering IT or wishing to develop their PowerShell skills will also benefit from this book.

**Windows PowerShell 3.0 Step by Step** - Ed Wilson 2013-02-15  
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

**PowerShell Deep Dives** - Oisín Grehan 2013-07-25  
Summary Here's your chance to learn from the best in the business. PowerShell Deep Dives is a trove of essential techniques, practical guidance, and the expert insights you earn only through years of experience. Editors Jeffery Hicks, Richard Siddaway, Oisín Grehan, and Aleksandar Nikolic hand-picked the 28 chapters in the book's four parts: Administration, Scripting, Development, and Platforms. About the

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

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

**Windows Server Automation with PowerShell Cookbook** - Thomas Lee 2021-07-30

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.

*Mastering Windows PowerShell Scripting* - Brenton J.W. Blawat 2015-04-27

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.

[PowerShell: Automating Administrative Tasks](#) - Michael Shepard 2017-02-24

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.

Microsoft SQL Server 2008 Administration with Windows PowerShell - Yan Pan 2011-01-06

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.

*Windows PowerShell Best Practices* - Ed Wilson 2014-01-15

Expert recommendations, pragmatically applied. Automate system administration using Windows PowerShell best practices—and optimize your operational efficiency. With this practical guide, Windows PowerShell expert and instructor Ed Wilson delivers field-tested tips, real-world examples, and candid advice culled from administrators across a range of business and technical scenarios. If you're an IT professional with Windows PowerShell experience, this book is ideal. Discover how to: Use Windows PowerShell to automate Active Directory

tasks Explore available WMI classes and methods with CIM cmdlets Identify and track scripting opportunities to avoid duplication Use functions to encapsulate business logic and reuse code Design your script's best input method and output destination Test scripts by checking their syntax and performance Choose the most suitable method for running remote commands Manage software services with Desired State Configuration

**Learn Windows PowerShell in a Month of Lunches** - Don Jones  
2016-12-22

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

**Windows PowerShell Pocket Reference** - Lee Holmes 2008-05-27  
The only portable, on-the-job reference to Windows PowerShell -- handy for Windows system administrators who number in the hundreds of thousands.

**Windows PowerShell Cookbook** - Lee Holmes 2013-01-15  
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.  
[Microsoft System Center PowerShell Essentials](#) - Guruprasad HP  
2015-04-28

If you are a Microsoft System Center administrator who manages System Center environments and utilizes the console for management, then this book is ideal for you. This book is also for System Center users who now want to learn to manage systems using PowerShell.

**Windows PowerShell 3.0 First Steps** - Ed Wilson 2013-07-15  
Get started with this powerful Windows administration tool Automate Windows administration tasks with ease by learning the fundamentals of Windows PowerShell 3.0. Led by a Windows PowerShell expert, you'll learn must-know concepts and techniques through easy-to-follow explanations, examples, and exercises. Once you complete this practical introduction, you can go deeper into the Windows PowerShell command line interface and scripting language with Windows PowerShell 3.0 Step

by Step. Discover how to: Create effective Windows PowerShell commands with one line of code Apply Windows PowerShell commands across several Windows platforms Identify missing hotfixes and service packs with a single command Sort, group, and filter data using the Windows PowerShell pipeline Create users, groups, and organizational units in Active Directory Add computers to a domain or workgroup with a single line of code Run Windows PowerShell commands on multiple remote computers Unleash the power of scripting with Windows Management Instrumentation (WMI)

*Mastering Windows PowerShell Scripting* - Chris Dent 2019-02-28

Grasp advanced PowerShell Core 6.0 functionalities to automate your environment Key Features Keep up with changes introduced in PowerShell Core 6.0 Easily maintain appropriate compatibility with older versions Automate complex tasks, manipulate data, and secure your environment with PowerShell Core 6.0 Book Description PowerShell scripts offer a handy way to automate various chores, however working effectively with these scripts can be a difficult task. This comprehensive guide starts with the fundamentals before moving on to advanced-level topics to help you become a PowerShell Core 6.0 expert. The first module, PowerShell Core 6.0 Fundamentals, begins with the new features of PowerShell Core 6.0, installing it on Linux, and working with parameters, objects and .NET classes from within PowerShell Core 6.0.

As you make your way through the chapters, you'll see how to efficiently manage large amounts of data and interact with other services using PowerShell Core 6.0. You'll be able to make the most of PowerShell Core 6.0's powerful automation feature, where you will have different methods available to parse data and manipulate regular expressions and Windows Management Instrumentation (WMI). After having explored automation, you will enter the extending PowerShell Core 6.0 module, covering asynchronous processing and desired state configuration. In the last module, you will learn to extend PowerShell Core 6.0 using advanced scripts and filters, and also debug issues along with working on error handling techniques. By the end of this book, you will be an expert in scripting with PowerShell Core 6.0. What you will learn Optimize code through the use of functions, switches, and looping structures Work with objects and operators to test and manipulate data Parse and manipulate different data types Create scripts and functions using PowerShell Use jobs, events, and popular public modules which assist with implementing multithreading Write .NET classes with ease within the 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 If you are a system administrator who wants to become an expert in controlling and automating your Windows environment, then *Mastering Windows PowerShell Scripting* is for you. It is also ideal for those new to the PowerShell language.