

Powershell And Wmi

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)

Get to grips with a new technology, understand what it is and what it can do for you, and then get to work with the most important features and tasks. If you're a keen administrator who wishes to learn more about

Windows Management Instrumentation and the use of Cmdlets, then this book is the perfect Starter guide for experienced professionals. This book combines an easy-to-learn approach with practical examples using the powerful Powershell 3.0 in Windows. This book is great for system administrators who would like to learn how to remotely manage systems utilizing PowerShell 3.0. It is assumed that you already have experience with previous versions of PowerShell but the book will provide easy-to-learn, practical examples of how to use the new features included in PowerShell 3.0. Over 100 PowerShell recipes for working more effectively with Windows Server 2022/2019 Key Features: Develop a holistic understanding of Windows Server 2022/2019 with PowerShell 7.1 Learn best practices for PowerShell scripting to automate common tasks and manage AD, enterprise security, WMI, Azure, and .NET 5 Discover new ways to optimize your PowerShell code by working through easy-to-follow recipes Book Description: With a foreword from PowerShell creator Jeffrey Snover, this heavily updated edition is designed to help you learn how to use PowerShell 7.1 effectively and manage the core roles, features, and services of Windows Server 2022/2019 in an enterprise setting. Brand new to this edition are recipes exploring the .NET Framework, enterprise server security, and managing Windows Server with Windows

Management Instrumentation (WMI). This latest edition equips you with over 100 recipes you'll need in day-to-day work, covering a wide range of fundamental and more advanced use cases. We look at how to install and configure PowerShell 7.1, along with useful new features and optimizations, and how the PowerShell compatibility solution bridges the gap to older versions of PowerShell. Topics include using PowerShell to manage networking and DHCP in Windows Server, objects in Active Directory, Hyper-V, and Azure. Debugging is crucial, so the book shows you how to use some powerful tools to diagnose and resolve issues with Windows Server. What You Will Learn: Perform key admin tasks on Windows Server 2022/2019 Keep your organization secure with JEA, group policies, logs, and Windows Defender Use the .NET Framework for administrative scripting Manage data and storage on Windows, including disks, volumes, and filesystems Create and configure Hyper-V VMs, implementing storage replication and checkpoints Set up virtual machines, websites, and shared files on Azure Report system performance using built-in cmdlets and WMI to obtain single measurements Apply the right tools and modules to troubleshoot and debug Windows Server Who this book is for: This book is for systems administrators, software architects, developers, or engineers working with Windows Server 2022/2019 seeking to automate

tasks more effectively with PowerShell 7.1. Basic knowledge of PowerShell is expected.

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.

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.

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 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

Learn the fundamentals of PowerShell to build reusable scripts and functions to automate

administrative tasks with Windows About This Book

- Harness the capabilities of the PowerShell system to get started quickly with server automation
- Learn to package commands into a reusable script and add control structures and parameters to make them flexible
- Get to grips with cmdlets that allow you to perform administration tasks efficiently

Who This Book Is For This book is intended for Windows administrators or DevOps users who need to use PowerShell to automate tasks. Whether you know nothing about PowerShell or know just enough to get by, this guide will give you what you need to go to take your scripting to the next level.

What You Will Learn

- Learn to verify your installed version of PowerShell, upgrade it, and start a PowerShell session using the ISE
- Discover PowerShell commands and cmdlets and understand PowerShell formatting
- Use the PowerShell help system to understand what particular cmdlets do
- Utilise the pipeline to perform typical data manipulation
- Package your code in scripts, functions, and modules
- Solve common problems using basic file input/output functions
- Find system information with WMI and CIM
- Automate IIS functionality and manage it using the WebAdministration module

In Detail Windows PowerShell is a task-based command-line shell and scripting language designed specifically for system administration. Built on the .NET Framework, Windows PowerShell helps IT

professionals and power users control and automate the administration of the Windows operating system and applications that run on Windows. PowerShell is great for batch importing or deleting large sets of user accounts and will let you collect a massive amount of detailed system information in bulk via WMI (Windows Management Instrumentation). Getting Started with PowerShell is designed to help you get up and running with PowerShell, taking you from the basics of installation, to writing scripts and web server automation. This book, as an introduction to the central topics of PowerShell, covers finding and understanding PowerShell commands and packaging code for reusability, right through to a practical example of automating IIS. It also includes topics such as installation and setup, creating scripts, automating tasks, and using Powershell to access data stores, registry, and file systems. You will explore the PowerShell environment and discover how to use cmdlets, functions, and scripts to automate Windows systems. Along the way, you will learn to perform data manipulation and solve common problems using basic file input/output functions. By the end of this book, you will be familiar with PowerShell and be able to utilize the lessons learned from the book to automate your servers. Style and approach A practical learning guide, complete with plenty of activities, examples

and screenshots.

This portable reference to Windows PowerShell 3.0 summarizes the command shell and scripting language, and provides a concise reference to the many tasks that make PowerShell so useful. If you're a busy Windows administrator, and don't have time to plow through huge books or search online, this is the ideal on-the-job tool.

Written by Microsoft PowerShell team member Lee Holmes, and excerpted from his Windows PowerShell Cookbook, this edition offers up-to-date coverage of PowerShell 3.0. You'll find information on the .NET classes and legacy tools you need to manage your system, along with chapters on how to write scripts, manage errors, and format output. Beginning with a guided tour of Windows PowerShell, this handy guide covers: PowerShell language and environment Regular expression reference XPath quick reference .NET string formatting .NET DateTime formatting Selected .NET classes and their uses WMI reference Selected COM objects and their uses Selected events and their uses Standard PowerShell verbs

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.

For years, support for scripting and command-line administration on the Windows platform has paled in comparison to the support offered by the Unix platform. Unix administrators enjoyed the immense power and productivity of their command shells, while Windows administrators watched in envy. Windows PowerShell, Microsoft's next-generation command shell and scripting language, changes this landscape completely. This Short Cut contains the essential reference material to help you get your work done-

including the scripting language syntax, a regular-expression reference, useful .NET classes, and much more.

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.

This book is part of a series of books that use PowerShell and WMI to resolve issues and create reports.

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 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.

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 How do you use Windows 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 3.0, 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 8 and Windows Server 2012 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.

Grasp advanced PowerShell 7.1 functionalities for effective automation of your environment Key Features Automate complex tasks, manipulate data, and secure your environment Work with dual code for PowerShell 7 and Windows PowerShell to maintain compatibility with older versions See PowerShell in action, from learning the fundamentals to creating classes, scripts, and modules Book Description PowerShell scripts offer a convenient way to automate various tasks, although working effectively with these scripts can be challenging. Mastering PowerShell Scripting helps you to navigate through PowerShell's capabilities. This extensively revised edition includes new

chapters on debugging and troubleshooting and creating GUIs (online chapter). Learn the new features of PowerShell 7.1 by working with parameters, objects, and .NET classes from within PowerShell 7.1. This comprehensive guide starts with the basics before moving on to advanced topics, including asynchronous processing, desired state configuration, using more complex scripts and filters, debugging issues, and error-handling techniques. Explore how to efficiently manage substantial amounts of data and interact with other services using PowerShell 7.1. This book will help you to make the most of PowerShell's automation features, using different methods to parse data, manipulate regular expressions, and work with Windows Management Instrumentation (WMI). What you will learn Optimize code with functions, switches, and looping structures Test and debug your scripts as well as raising and catching errors Work with objects and operators to test and manipulate data Parse and manipulate different data types Use jobs, runspace, and runspace pools to run code asynchronously Write .NET classes with ease within PowerShell Create and implement regular expressions in PowerShell scripts Make use of advanced techniques to define and restrict the behavior of parameters Who this book is for This book is for system administrators who want to automate and speed up their processes using PowerShell and Windows PowerShell. Some familiarity with operating systems would be useful, but not essential.

Learn the fundamentals of PowerShell to build reusable scripts and functions to automate administrative tasks with Windows About This Book Harness the capabilities of the PowerShell system to get started quickly with server automation Learn to package commands into a reusable script and add control structures and parameters to make them flexible Get to grips with cmdlets that allow you to

perform administration tasks efficiently Who This Book Is For This book is intended for Windows administrators or DevOps users who need to use PowerShell to automate tasks. Whether you know nothing about PowerShell or know just enough to get by, this guide will give you what you need to go to take your scripting to the next level. What You Will Learn Learn to verify your installed version of PowerShell, upgrade it, and start a PowerShell session using the ISE Discover PowerShell commands and cmdlets and understand PowerShell formatting Use the PowerShell help system to understand what particular cmdlets do Utilise the pipeline to perform typical data manipulation Package your code in scripts, functions, and modules Solve common problems using basic file input/output functions Find system information with WMI and CIM Automate IIS functionality and manage it using the WebAdministration module In Detail Windows PowerShell is a task-based command-line shell and scripting language designed specifically for system administration. Built on the .NET Framework, Windows PowerShell helps IT professionals and power users control and automate the administration of the Windows operating system and applications that run on Windows. PowerShell is great for batch importing or deleting large sets of user accounts and will let you collect a massive amount of detailed system information in bulk via WMI (Windows Management Instrumentation). Getting Started with PowerShell is designed to help you get up and running with PowerShell, taking you from the basics of installation, to writing scripts and web server automation. This book, as an introduction to the central topics of PowerShell, covers finding and understanding PowerShell commands and packaging code for reusability, right through to a practical example of automating IIS. It also includes topics such as installation and setup, creating scripts, automating tasks, and using

Powershell to access data stores, registry, and file systems. You will explore the PowerShell environment and discover how to use cmdlets, functions, and scripts to automate Windows systems. Along the way, you will learn to perform data manipulation and solve common problems using basic file input/output functions. By the end of this book, you will be familiar with PowerShell and be able to utilize the lessons learned from the book to automate your servers. Style and approach A practical learning guide, complete with plenty of activities, examples and screenshots.

Die Windows PowerShell 3.0, die bei Windows 8 und Windows Server 2012 bereits integriert ist, eröffnet Administratoren der Windows-Plattform interessante Möglichkeiten. Mit der objektbasierten Befehlsshell, der einprägsamen Skriptsprache und den Utilities der PowerShell können Sie verschiedenste Aufgaben schnell erledigen und automatisieren. Die PowerShell ermöglicht den Zugriff auf leistungsstarke Technologien: auf das .NET Framework, die Windows Management Instrumentation (WMI), COM, die Windows-Registrierung u.v.a.m. Alles, was Sie benötigen, um die PowerShell 3.0 effektiv zu nutzen, finden Sie kompakt und verständlich in diesem Buch erklärt. Hier lernen Sie die Grundprinzipien der Arbeit mit der PowerShell kennen, die Syntax der Skriptsprache, Erweiterungsmöglichkeiten wie Snap-ins und Module sowie die Zusammenarbeit zwischen PowerShell und den Microsoft Serverprodukten. Sie lernen unter anderem, selbst Skripte zu schreiben, entfernte Rechner zu verwalten und die PowerShell in ihre Arbeit mit Produkten wie Active Directory oder SQL zu integrieren. Eine Reihe von Referenzen macht das Buch außerdem zum idealen Nachschlagewerk. Sie behandeln z.B.: Reguläre Ausdrücke, Nützliche .NET- und WMI-Klassen, Ausgewählte COM-Objekte und deren Verwendung, .NET-String-Formatierung, AD Befehle, z.B. DSGET, durch Active

Directory Cmdlets ersetzen.

PowerShell and WMI Covers 150 Practical

Techniques Manning Publications

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

Go beyond simple queries and get the inside track on how to

write system administration scripts with Windows

Management Instrumentation (WMI)—straight from a Microsoft

scripting expert. With labs and lessons you complete at your

own pace, this definitive tutorial helps you build your scripting

expertise and provides the professional guidance you need to

automate Windows administrative tasks. Teach yourself how

to write and run scripts to: Configure WMI—without editing the

registry Audit and inventory software on local or remote

desktops and servers Manage system components, including

keyboards, motherboards, disk drives, and printers Monitor

and report on real-time changes in system performance and

respond to critical events Configure network components Test

security access rights and make changes to one or multiple

systems And learn how to: Test, diagnose, and resolve errors with WMI Back-up and restore the registry PLUS—Get more than 900 script samples that you can use to help simply the management of your system resources CD-ROM features: More than 900 sample scripts to adapt for your own work Time-saving scripting tools—including Script-o-Matic 2.0 and WMIcheck Fully searchable eBook A Note Regarding the CD or DVD The print version of this book ships with a CD or DVD. For those customers purchasing one of the digital formats in which this book is available, we are pleased to offer the CD/DVD content as a free download via O'Reilly Media's Digital Distribution services. To download this content, please visit O'Reilly's web site, search for the title of this book to find its catalog page, and click on the link below the cover image (Examples, Companion Content, or Practice Files). Note that while we provide as much of the media content as we are able via free download, we are sometimes limited by licensing restrictions. Please direct any questions or concerns to booktech@oreilly.com.

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remoting Download all examples and source code presented in this book from informit.com/title/9780672329883.

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. 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

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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

PowerShell Source Code is one of a group of books with
a specific purpose in mind. Provide you with over 90
pages of solid, workable code you can cut and paste.
You can create ASP, ASPX, Delimited Files , Excel ,
HTA HTML, XML, and XSL programs within minutes
after purchasing this book.

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)

Focused content on automating the user authentication
and authorization tool for Windows environments
Automation helps make administration of computing
environments more manageable. It alleviates the
repetition of repeating frequent tasks and and automates
just about any task for Active Directory, Windows
PowerShell 2.0. Focused on everyday and frequently
performed tasks, this indispensable guide provides you
with the PowerShell solutions for these tasks. Solutions
are presented in a step-by-step format so that you can
fully grasp how the new Active Directory module for
PowerShell provides command-line scripting for
administrative, configuration, and diagnostic tasks.

Walks you through the processes and tools required to automate everyday tasks Offers PowerShell solutions for maintaining a Windows Server 2008 R2 environment Includes real-world examples, explanations of concepts, and step-by-step solutions This unique book allows you to work more efficiently and effectively and keep up with the ever-increasing demands from businesses.

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

accessible to administrators of every experience level. A guide to using Windows PowerShell to script Windows administrative tasks and control Windows from the command line.

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.

If you're a Windows administrator, scripting expertise can liberate you from boring, repetitive work—so you can take on the sophisticated, high-value projects you really want. Top scripting guru Don Jones has written the definitive administrator's guide to getting results with Microsoft's key scripting technologies: VBScript, WMI, and ADSI. Jones draws on his unsurpassed experience training Windows administrators in conferences, classes, and from his enormously popular site, ScriptingAnswers.com. You'll learn how to use VBScript, WMI, and ADSI to gain administrative control over nearly every aspect of every recent Windows server or client, including Windows Server 2003, Vista, XP, 2000, and NT. As you gain experience, Jones introduces more advanced techniques, ranging from modular scripting and script encryption to integrating VBScript with HTML code. Jones concludes with a full section of ready-to-run, real-world examples—from logon/logoff scripts to automated domain and network administration, from querying WMI to creating Active Directory groups. Every script is explained line-by-line, with challenging techniques described in even greater detail.

Efficiently administer and maintain your development environment with Windows PowerShell About This Book Explore scripting and automation techniques with Windows PowerShell Gain concrete knowledge of Windows PowerShell scripting to perform professional level scripting Discover the benefits of the Configuration Management Platform with this step-by-step guide that includes real-world scripting examples Who This Book Is For If you are an IT professional or developer who has worked on the .Net platform and you want to learn automation using Windows PowerShell, then this book is for you. This self-start guide takes you from the basics and gradually moves to an intermediate level to show you how to perform professional scripting. What You Will Learn Understand the concepts of building PowerShell scripts and the basics of programming Manage the LYNC, Exchange, and SharePoint platforms Create a Pull server using a SMB file share and HTTP and HTTPS Use .NET classes in Windows PowerShell and C# to manage Exchange Online Use PowerShell in C# to manage Exchange Online and work with .NET classes in PowerShell Automate LYNC clients, consuming Client Server Object Models to administrate SharePoint Online In Detail Windows PowerShell 5.0 for .NET Developers is your self-start guide to performing automation using Windows PowerShell. This book will help you to understand the PowerShell syntax and grammar and will also teach you techniques to remove the rough edges of manual deployments. Packed with PowerShell scripts and sample C# codes to automate tasks, it also includes real-world scenarios such as administrating office

servers to help you save time and perform deployments swiftly and efficiently. The book begins with the Windows PowerShell basics, explores the significant features of Windows Management Framework 5.0, covers the basic concepts of Desired State Configuration and the importance of idempotent deployments. By the end of the book, you will have a good understanding of Windows PowerShell's features and will be able to automate your tasks and manage configuration effectively. Style and approach This is an easy-to-follow step-by-step guide with text-enabled screenshots. Each topic is explained with codes and examples. It also includes multiple approaches for a number of tasks to let you choose the best one for you depending on your scenario.

This portable reference to PowerShell summarizes the command shell and scripting language and provides a concise guide to the many tasks that make PowerShell so useful. If you're a busy administrator and don't have time to plow through huge books or in-depth online searches, this is the ideal on-the-job tool. Written by PowerShell team member Lee Holmes and excerpted from his PowerShell Cookbook, this edition offers up-to-date coverage of Windows PowerShell 5.1 and open source PowerShell Core up to 7 and beyond. Beginning with a guided tour of PowerShell, this handy guide covers: PowerShell language and environment Regular expression reference XPath quick reference .NET string formatting .NET DateTime formatting Selected .NET classes and their uses WMI reference Selected COM objects and their uses Standard PowerShell verbs

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.

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