

Use PowerShell Core on Linux to Automate Complex, Repetitive, and Time-Consuming Tasks

```
PS /home/aaronkilik> get-alias

CommandType      Name                                     Version      Source
-----
Alias            ? -> Where-Object
Alias            % -> ForEach-Object
Alias            cd -> Set-Location
Alias            chdir -> Set-Location
Alias            clc -> Clear-Content
Alias            clear -> Clear-Host
Alias            clhy -> Clear-History
Alias            cli -> Clear-Item
Alias            clp -> Clear-ItemProperty
Alias            cls -> Clear-Host
Alias            clv -> Clear-Variable
Alias            cnsn -> Connect-PSSession
Alias            copy -> Copy-Item
Alias            cpi -> Copy-Item
Alias            cvpa -> Convert-Path
Alias            dbp -> Disable-PSBreakpoint
Alias            del -> Remove-Item
```

Are you tired of spending countless hours on tedious and repetitive tasks? Do you wish there was a way to automate these tasks and save yourself valuable time and effort? Look no further! With PowerShell Core on Linux, you can now harness the power of automation and make your life easier.

The Rise of PowerShell Core

PowerShell, developed by Microsoft, has long been the go-to scripting language for Windows administrators. It provides a rich set of tools and commands that enable users to automate various tasks efficiently. However, until recently, PowerShell was limited to the Windows environment, making it inaccessible to Linux users.



PowerShell Core for Linux Administrators Cookbook: Use PowerShell Core 6.x on Linux to automate complex, repetitive, and time-consuming

tasks by Prashanth Jayaram(1st Edition, Kindle Edition)

★★★★★ 5 out of 5

Language : English
File size : 57297 KB
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
Print length : 568 pages



With the of PowerShell Core, a cross-platform version of PowerShell, Linux users can now take advantage of the same powerful automation capabilities that Windows users have enjoyed for years. PowerShell Core runs on top of the .NET Core framework and is compatible with Windows, macOS, and various Linux distributions.

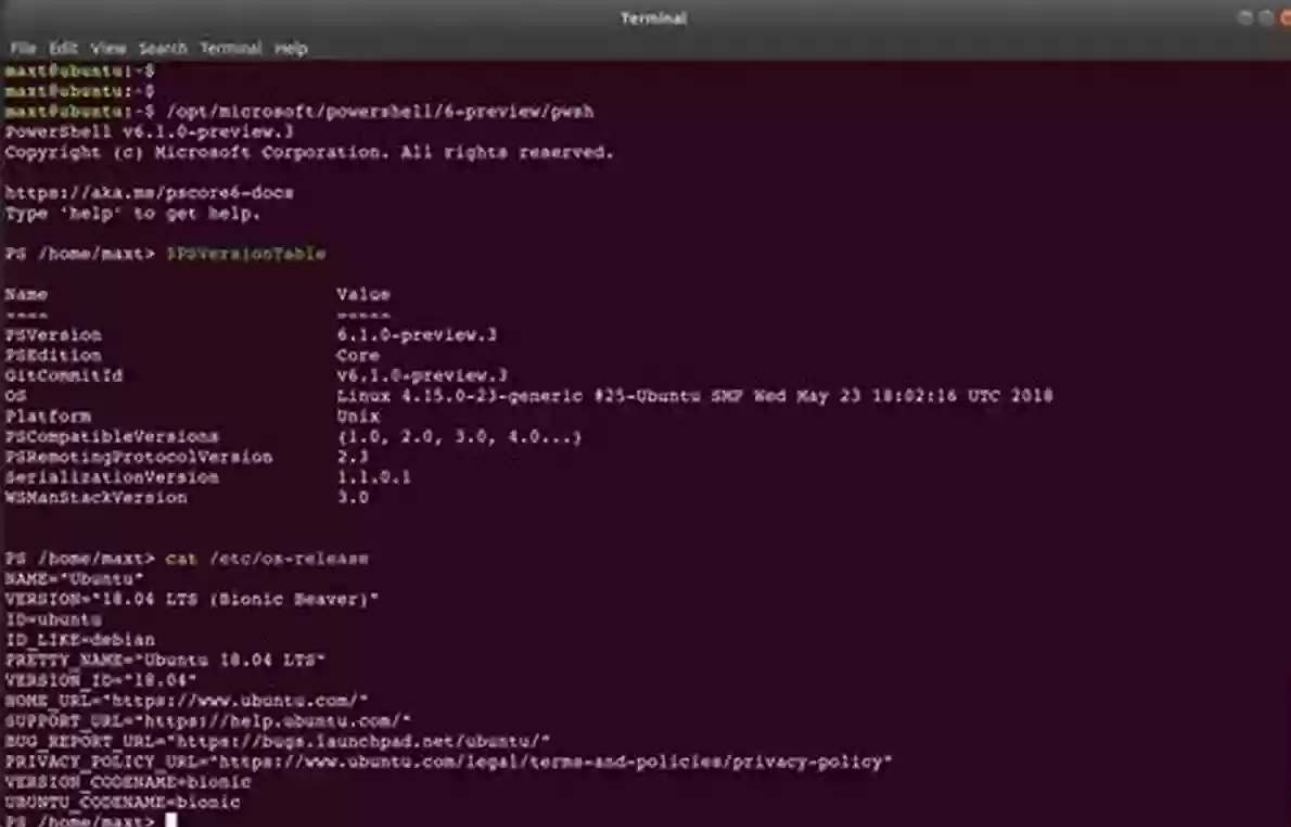
Unleashing the Power of Automation

Imagine having the ability to automate complex and time-consuming tasks with just a few lines of code. PowerShell Core on Linux makes this a reality. Whether you need to perform system configuration, manage network resources, or handle data processing, PowerShell Core provides a vast array of cmdlets and modules to simplify your work.

One of the key advantages of PowerShell Core is its versatility. It allows you to interact with multiple systems and technologies, including cloud platforms, databases, and APIs. By leveraging PowerShell Core, you can streamline your workflows, eliminate manual errors, and boost productivity.

Getting Started with PowerShell Core on Linux

Getting started with PowerShell Core on Linux is easy. Simply download and install the appropriate package for your Linux distribution from the official PowerShell GitHub repository. Once installed, you can launch PowerShell Core by typing "pwsh" in your terminal.



```
Terminal
File Edit View Search Terminal Help
maxt@ubuntu:~$
maxt@ubuntu:~$
maxt@ubuntu:~$ /opt/microsoft/powershell/6-preview/pwsh
PowerShell v6.1.0-preview.1
Copyright (c) Microsoft Corporation. All rights reserved.

https://aka.ms/powershell-docs
Type 'help' to get help.

PS /home/maxt> $PSVersionTable

Name                           Value
----                           -
PSVersion                       6.1.0-preview.1
PSEdition                       Core
GitCommitId                     V6.1.0-preview.1
OS                               Linux 4.15.0-23-generic #25-Ubuntu SMP Wed May 23 18:02:16 UTC 2018
Platform                       Unix
PSCompatibleVersions           (1.0, 2.0, 3.0, 4.0...)
PSRemotingProtocolVersion      2.3
SerializationVersion          1.1.0.1
WSManStackVersion              3.0

PS /home/maxt> cat /etc/os-release
NAME="Ubuntu"
VERSION="18.04 LTS (Bionic Beaver)"
ID=ubuntu
ID_LIKE=debian
PRETTY_NAME="Ubuntu 18.04 LTS"
VERSION_ID="18.04"
HOME_URL="https://www.ubuntu.com/"
SUPPORT_URL="https://help.ubuntu.com/"
BUG_REPORT_URL="https://bugs.launchpad.net/ubuntu/"
PRIVACY_POLICY_URL="https://www.ubuntu.com/legal/terms-and-policies/privacy-policy"
VERSION_CODENAME=bionic
UBUNTU_CODENAME=bionic
PS /home/maxt>
```

PowerShell Core provides an interactive shell where you can execute commands and scripts. You can also write scripts using any text editor and execute them using PowerShell Core.

Let's take a look at a simple example. Suppose you have a directory containing multiple log files that you need to analyze. Instead of manually opening each file and extracting the relevant information, you can use PowerShell Core to automate the entire process.

```
$logs = Get-ChildItem -Path /path/to/logs -Filter "*.log" foreach
```

In this example, we use the "Get-ChildItem" cmdlet to retrieve a list of log files in a specific directory. We then iterate over each file and perform the necessary processing and analysis. The possibilities are endless when it comes to automating tasks using PowerShell Core.

PowerShell Core in a DevOps Environment

PowerShell Core is not only useful for individual users but also for organizations that embrace DevOps methodologies. With its ability to automate tasks across diverse platforms and systems, PowerShell Core becomes an invaluable tool for continuous integration and deployment.

Imagine a scenario where you need to deploy your application to multiple servers on different platforms. Instead of manually logging into each server and performing the deployment steps, you can write a PowerShell Core script that handles the entire process for you. This not only saves time and effort but also minimizes the risk of human error.

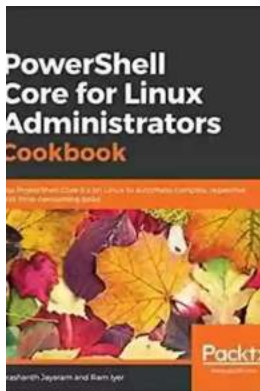
PowerShell Core on Linux opens up a world of opportunities for users who want to automate complex, repetitive, and time-consuming tasks. Whether you are an individual looking to simplify your daily workflow or an organization striving for streamlined DevOps practices, PowerShell Core provides a powerful solution.

So, why spend hours on manual tasks when you can automate them using PowerShell Core? Embrace the power of automation, free up your time, and let PowerShell Core on Linux do the hard work for you!

```
Terminal
Terminal
PS /home/jaiello> Get-Module -ListAvailable

Directory: /opt/microsoft/powershell/6.0.0-alpha.9/Modules

ModuleType Version      Name                               ExportedCommands
-----
Manifest    1.0.1.0     Microsoft.PowerShell.Archive      {Compress-Archive,...
Manifest    3.0.0.0     Microsoft.PowerShell.Host         {Start-Transcript,...
Manifest    3.1.0.0     Microsoft.PowerShell.Management   {Add-Content, Clea...
Manifest    3.0.0.0     Microsoft.PowerShell.Security     {Get-Credential, G...
Manifest    3.1.0.0     Microsoft.PowerShell.Utility      {Format-List, Form...
Binary      1.0.0.1     PackageManagement                 {Find-Package, Get...
Script      3.3.9       Pester                             {Describe, Context...
Script      1.0.0.1     PowerShellGet                      {Install-Module, F...
Script      0.0         PSDesiredStateConfiguration      {StrongConnect, Is...
Script      1.2         PSReadLine                         {Get-PSReadlineKey...
```



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FREE DOWNLOAD E-BOOK 

Over 150 recipes to leverage Microsoft's open source automation framework and command line shell

Key Features

- Work effectively on Windows, Linux, and macOS with PowerShell's object-oriented approach and capabilities
- Generate rich insights into your Linux workloads to help remediate any issues
- Enhance your native Linux capabilities with PowerShell Core 6.1

Book Description

PowerShell Core, the open source, cross-platform that is based on the open source, cross-platform .NET Core, is not a shell that came out by accident; it was intentionally created to be versatile and easy to learn at the same time.

PowerShell Core enables automation on systems ranging from the Raspberry Pi to the cloud.

PowerShell Core for Linux Administrators Cookbook uses simple, real-world examples that teach you how to use PowerShell to effectively administer your environment. As you make your way through the book, you will cover interesting recipes on how PowerShell Core can be used to quickly automate complex, repetitive, and time-consuming tasks. In the concluding chapters, you will learn how to develop scripts to automate tasks that involve systems and enterprise management.

By the end of this book, you will have learned about the automation capabilities of PowerShell Core, including remote management using OpenSSH, cross-platform enterprise management, working with Docker containers, and managing SQL databases.

What you will learn

- Leverage the object model of the shell, which is based on .NET Core
- Administer computers locally as well as remotely using PowerShell over OpenSSH
- Get to grips with advanced concepts of PowerShell functions
- Use PowerShell for administration on the cloud
- Know the best practices pertaining to PowerShell scripts and functions
- Exploit the cross-platform capabilities of PowerShell to manage scheduled jobs, Docker containers and SQL Databases

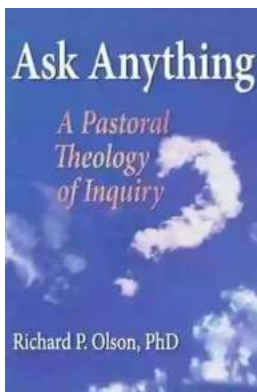
Who this book is for

PowerShell Core 6.1 Linux Administration Cookbook is for you if you are a system administrator who wants to learn to control and automate a Linux environment with PowerShell Core 6.1. Basic knowledge of PowerShell scripting is necessary. It is assumed that you already understand how an operating system is structured and how to use the command-line interface to work with the operating system.

Table of Contents

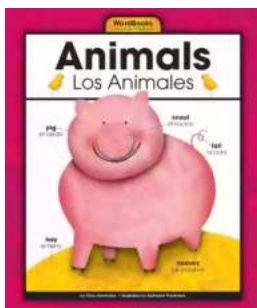
1. Introducing PowerShell Core
2. Preparing for Administration using PowerShell
3. First Steps in Administration using PowerShell
4. Passing data through pipelines
5. Using Variables and Objects
6. Working with Strings

7. Flow Control using Branches and Loops
8. Performing Calculations
9. Using Arrays and Hash Tables
10. Handling Files and Directories
11. Building Scripts and Functions
12. Advanced Concepts of Functions
13. Debugging and Error Handling
14. Enterprise Administration using PowerShell
15. PowerShell and Cloud Operations
16. Using PowerShell for SQL Database Management
17. Using PowerShell with Docker



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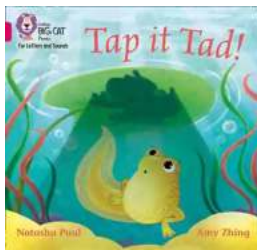
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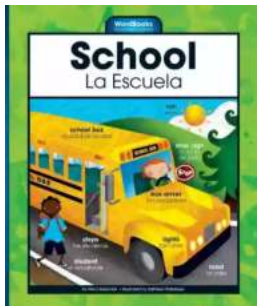
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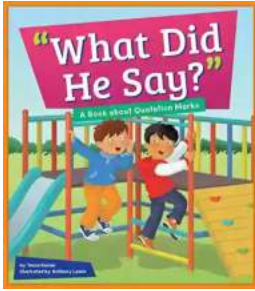
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