

Automate & delegate Office 365 administration with PowerShell in five steps

Heiko Brenn  @HeikoBrenn



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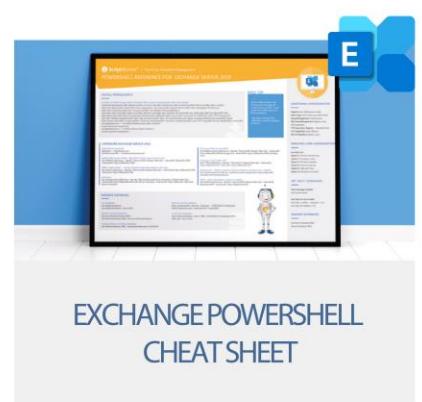
POWERSHELL
CHEAT SHEET



POWERSHELL SECURITY
EBOOK



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Let's get in touch



@HeikoBrenn



@HeikoBrenn



heiko.brenn@scriptrunner.com



Github.com/HeikoBrenn



STANDARDIZATION, AUTOMATION AND DELEGATION OF RECURRING TASKS



AUTO-CREATED
USER FRIENDLY
WEB FORMS

SECURE
CREDENTIAL
ADMINISTRATION

CENTRALIZED SCRIPTS AND
MODULES MANAGEMENT

INTERACTIVE, SCHEDULED
AND EVENT-DRIVEN
SCRIPT EXECUTION

COMPREHENSIVE
MONITORING AND
REPORTING





Automating
Office 365 with
PowerShell
-
Use Cases
and
Challenges

Automate & Delegate
Office 365
administration
with PowerShell
in 5 steps

The Potential of PowerShell

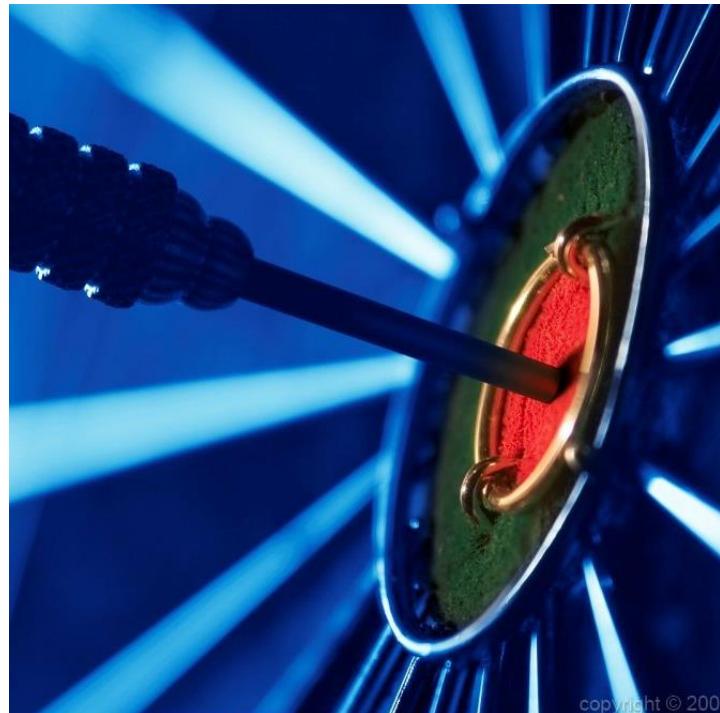
Very mature command-line shell
and scripting language for IT automation

Great framework to automate
recurring tasks consistently

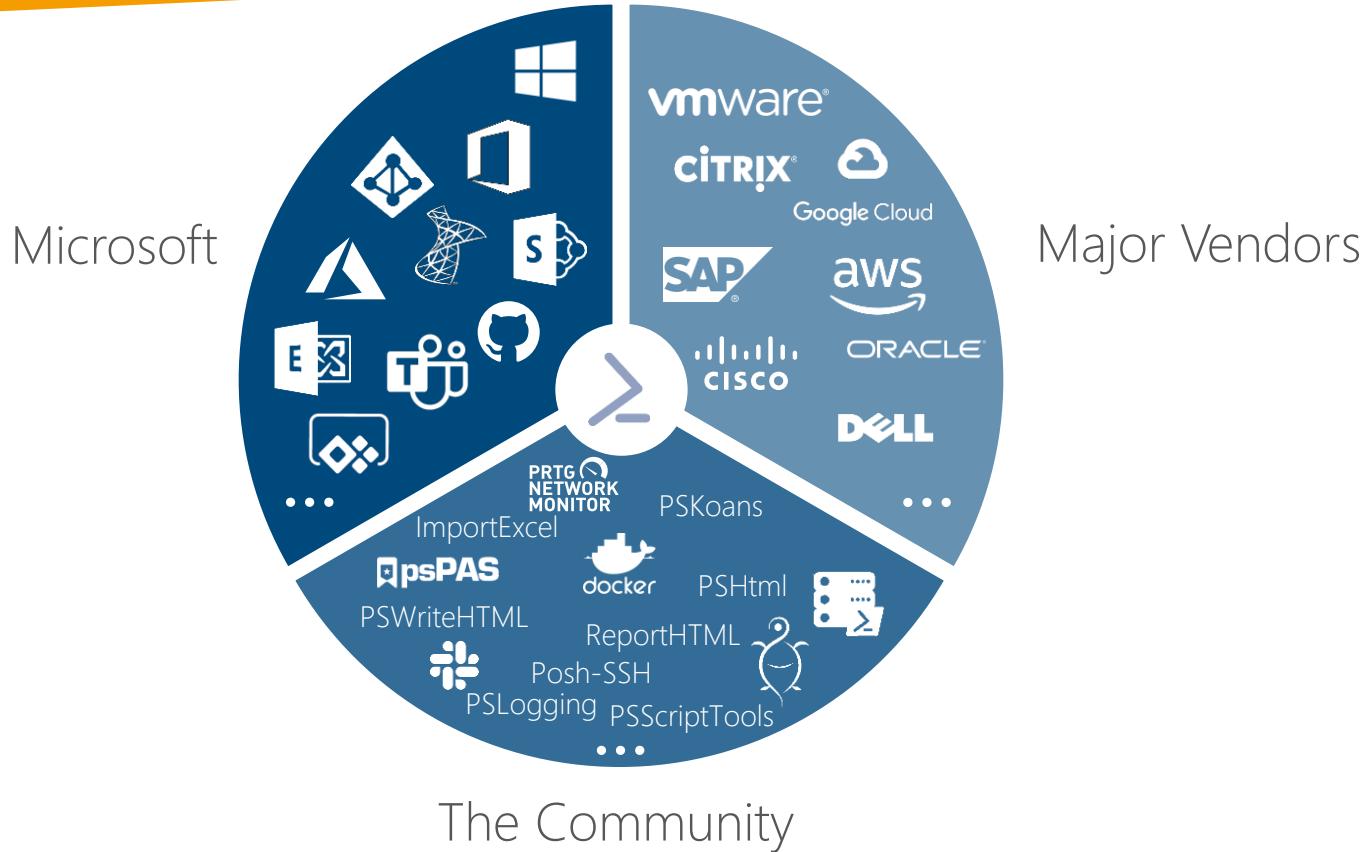
Simplifies administration of your
entire IT infrastructure

Strong commitment from Microsoft
and many other vendors

Very vital worldwide community



The PowerShell Ecosystem



PowerShell modules for Office 365



	Module Name	Current Version	Number of CmdLets
	AzureAD V2	2.0.2.140	231
	ExchangeOnlineManagement	3.0.0	22
	MicrosoftTeams	4.7.0	476
	Microsoft.Online.SharePoint.PowerShell SharePointPnPShellOnline	16.0.22921.12000 3.29.2101.0	234 496
	Microsoft.PowerApps.Administration.PowerShell Microsoft.PowerApps.PowerShell	2.0.59 1.0.9	155 40
	Microsoft.Graph	1.12.3	5.698

Create | Delete | Manage Teams

Create | Delete | Manage Mailboxes

Manage Out-Of-Office Settings

Manage Office 365 licenses

Create Reports



Two ways of using PowerShell



PowerShell challenges



Let's face it.
Not everyone is a scripting expert

„De-centralized“ PowerShell landscape

How to enable support teams &
LOB users to use PowerShell?

Know-how bottlenecks
Security concerns

PowerShell is only used by
a few IT experts



Unlock the power of PowerShell in 5 steps



Centralized script and module management

Secure credential and permission management

Great user experience
Easy-to-use interface

Flexible & secure delegation

Comprehensive monitoring and reporting



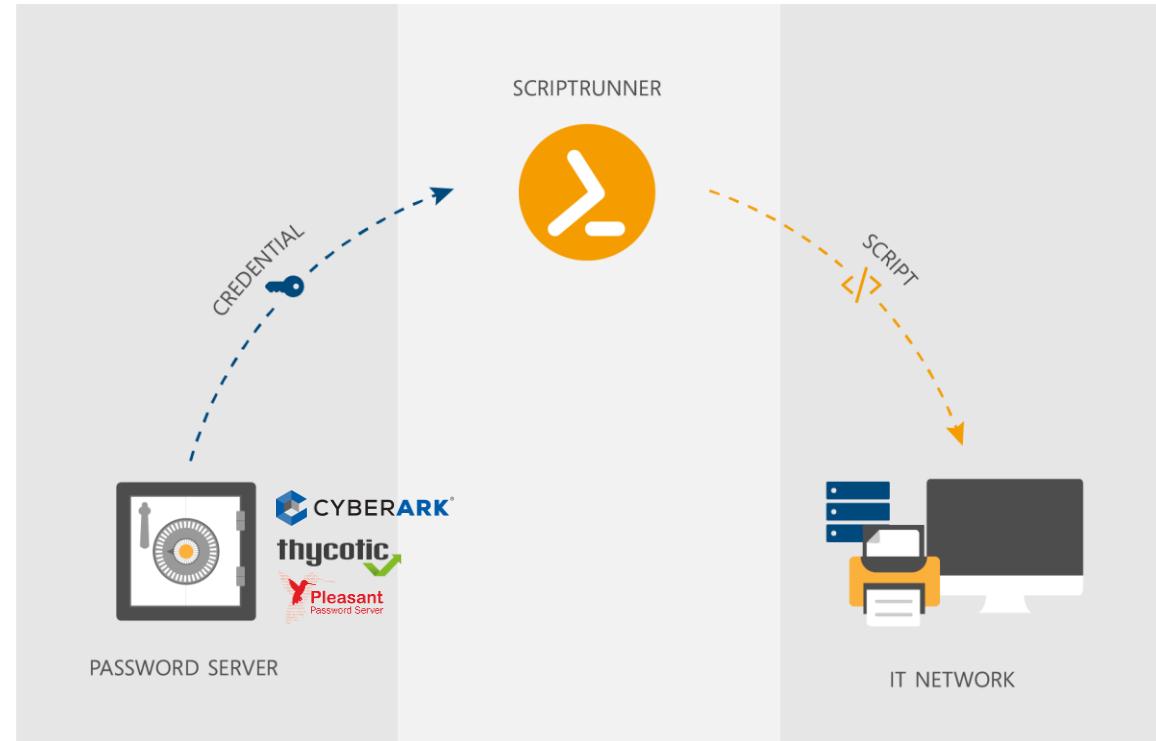
Centralized script and module management



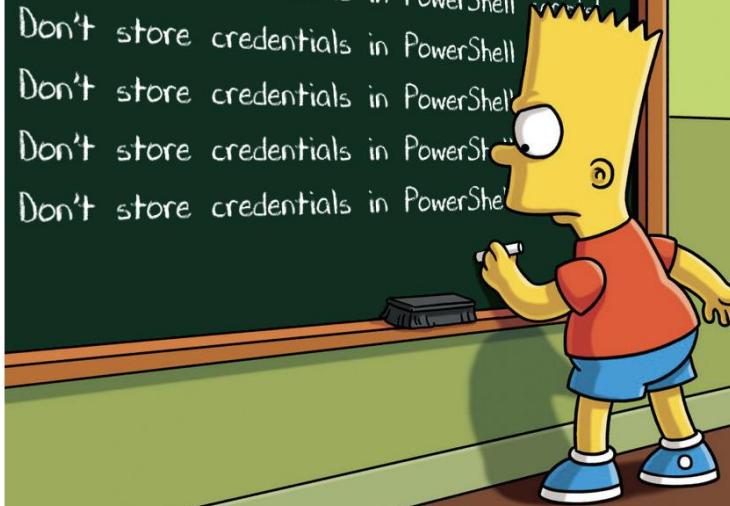
The screenshot shows the ScriptRunner web application interface. On the left, a sidebar navigation includes links for Dashboard, Run, Authorize & Delegate, Monitoring, Configuration (selected), Actions, Queries, Targets, Scripts (selected), Credentials, and Settings. The main content area is titled 'Scripts' and shows a list of 1282 scripts. One script, 'Set-EOOutOfOffice.ps1', is selected and displayed in a detailed view. This view includes tabs for Configuration, General, Header information, and Code editor (which is currently active). The code editor displays PowerShell script code for managing auto-replies. The top right of the interface shows a user session (COMPANYAdministrator(Kerberos)), a language dropdown (en), and a filter for 'All owners'.

```
param([Parameter(Mandatory = $true, ParameterSetName="Schedule Auto Reply")]
      [datetime]$EndDate,
      [Parameter(ParameterSetName="Disable Auto Reply")]
      [Parameter(ParameterSetName="Enable Auto Reply")]
      [Parameter(ParameterSetName="Schedule Auto Reply")]
      [switch]$GenerateReport
)
try{
    [string[]]$Properties = @('Identity','AutoReplyState','StartTime','EndTime','ExternalAudience',
    [string[]]$resultMessage = @()
    [string]$msg = "Mailbox {0}"
    [string]$replyType = 'All'
    [hashtable]$cmdArgs = @{'ErrorAction' = 'Stop'
                           'Confirm' = $false
                           }
    if($PSCmdlet.ParameterSetName -eq "Disable Auto Reply"){
        $cmdArgs.add('AutoReplyState', 'Disabled')
        $msg += "disabled"
    }
    else{
        if($AutoReplyType -eq 'Only contact list members'){
            $replyType = 'Known'
        }
        if($AutoReplyType -eq 'Internal only'){
            $replyType = 'None'
        }
    }
}
```

- Centralized password safes
 - CyberArk Password Vault
 - Pleasant Password Server
 - Thycotic Secret Server
- No credentials are stored locally
- Automatic password rotation
- One single secure password repository for multiple ScriptRunner instances



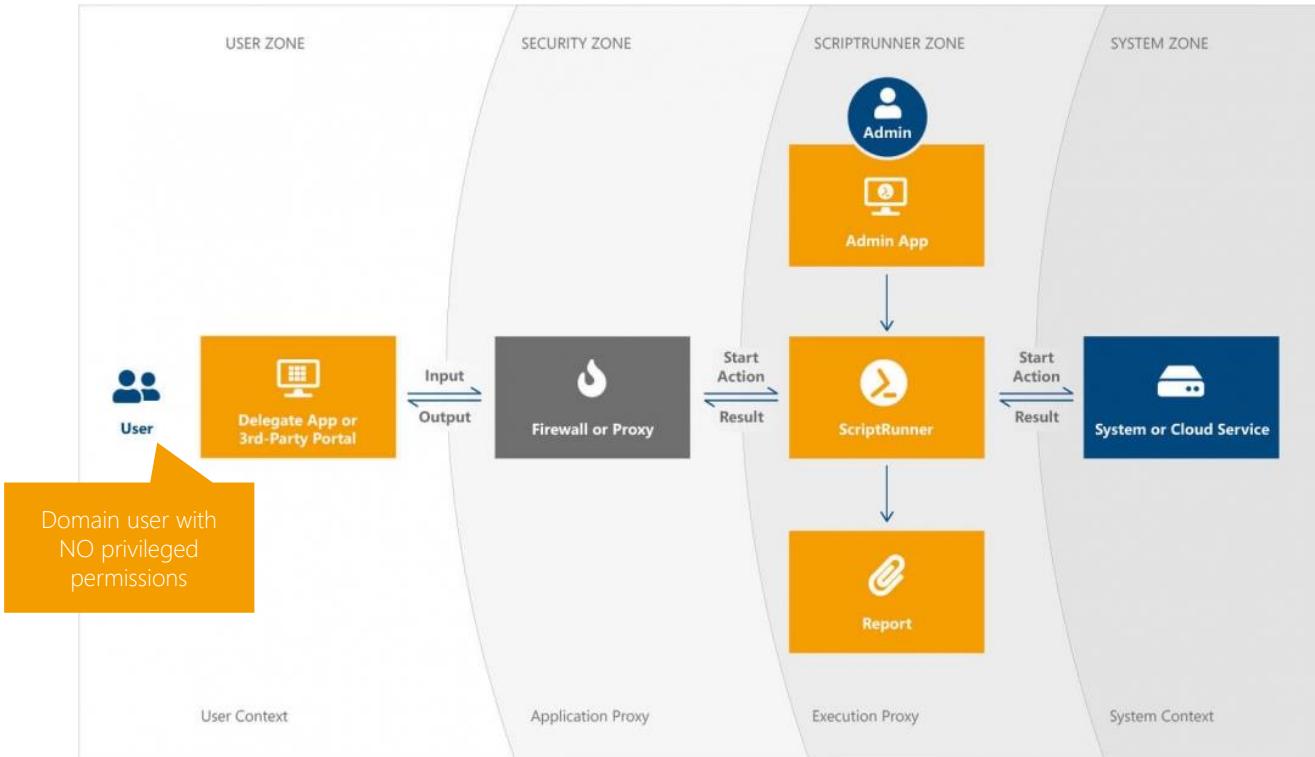
Don't store credentials in PowerShell scripts!
Don't store credentials in PowerShell
Don't store credentials in PowerShell



MATT GROENING

SPOILER
TV

ScriptRunner – Secure Delegation



PowerShell for Everyone



The Script

The screenshot shows a Windows PowerShell ISE window with the title bar "Administrator: Windows PowerShell ISE". The menu bar includes File, Edit, View, Tools, Debug, Add-ons, and Help. The tabs at the top are Untitled3.ps1, Exchange_Webinar.ps1, and Set-EOOutOfOffice.ps1 (the active tab). The code in the editor is as follows:

```
118     $cmdArgs.Add('ExternalAudience', $replyType)
119     $cmdArgs.Add('InternalMessage', $internalText )
120     $cmdArgs.Add('ExternalMessage', $externalText )
121     if($PSCmdlet.ParameterSetName -eq "Schedule Auto Reply"){
122         $cmdArgs.Add('AutoReplyState', 'Scheduled')
123         $cmdArgs.Add('EndTime', $endDate)
124         $cmdArgs.Add('StartTime', $startDate)
125         $msg += "scheduled"
126     }
127     else{
128         $cmdArgs.Add('AutoReplyState', 'Enabled')
129         $msg += "enabled"
130     }
131 }
132
133 $Script:resHTML = @()
134 foreach($item in $mailboxIds){
135     try{
136         $box = Get-Mailbox -Identity $item -ErrorAction Stop
137         if($null -ne $box){
138             try{
139                 $null = Set-MailboxAutoReplyConfiguration @cmdArgs -Identity $item
140                 if($generateReport -eq $true){
141                     $Script:resHTML += Get-MailboxAutoReplyConfiguration -Identity $item
142                 }
143                 $resultMessage += [System.String]::Format($msg,$box.UserPr
144             }
145             catch{
146                 Write-Output "Error occurred at set Mailbox $($item)"
147             }
148         }
149     }
150     catch{
151         Write-Output "Error occurred at get Mailbox $($item)"
152     }
153 }
```

The bottom status bar shows "PS C:\Users\administrator.COMPANY>" and "Completed". The bottom right corner indicates "Ln 1 Col 36" and "120%". A yellow arrow points from the right margin towards the code area.

OutOfOffice

Create OOF Notifications With ScriptRunner Integration



Please select mailbox(es):

🔍

Angus Young Shania Twain Phil Collins ▼

Note the reason you run this action now.

Please select the notification template:

Sick leave ▼

Please select the start of absence

Jul 26, 2022

Please select the end of absence

Jul 31, 2022, 10:22 AM

Generate a report

▶

The User Experience

Great User Experience



The screenshot shows the ScriptRunner interface with a central dialog box titled "Simple VM Creation". The dialog contains the following fields:

- Enter name of VM (NOTE: Must start with "TEST-")
TEST-VM0010
- Select an operating system
UbuntuTS
- Specs: 1 CPU, 3.5 GB RAM, 50 GB HDD (100 \$ per month)
- Specs: 4 CPU, 16GB RAM, 200 GB HDD (390\$ p. Press enter to select)
- Specs: 16 CPU, 64 GB RAM (900 \$ per month)

At the bottom right of the dialog is a large green "Run" button with a play icon.

Flexible & secure delegation



The screenshot shows the ScriptRunner interface for managing Active Directory delegations. The left sidebar has a dark blue header with the ScriptRunner logo and navigation links: Dashboard, Run, Authorize & Delegate (which is selected and highlighted in blue), Monitoring, Configuration, and Settings. The main content area has a light gray header with the title "Active Directory Self-Services" and a breadcrumb trail: End users > Authorize & Delegate. Below the header are buttons for "Save" and "Delete". The left sidebar under "Delegations" lists "General", "Memberships", and "Delegations" (which is also highlighted in blue). The main panel is titled "Delegations" and contains a section for "Assigned actions (More ...)" with several items listed:

- AD: Show Active Directory User Properties (Get-ADUser) (highlighted in orange)
- Advanced Active Directory Report
- Reset password for Active Directory user
- Change Active Directory User Properties

Below this is a list of local actions:

- Local: Add two values
- AD: Show Active Directory User Properties (Get-ADUser) (highlighted in orange)
- Simulate Set-ADUserPropertiesDemo
- Test-Cascaded ADQueries
- Get-ExMailboxProperties
- Remove-PrintJob
- Validation possibilities

A message at the bottom right of the delegation list says "Press enter to remove".

Comprehensive monitoring and reporting



Screenshot of the ScriptRunner interface showing the "Live Monitor" dashboard.

The dashboard displays the following information:

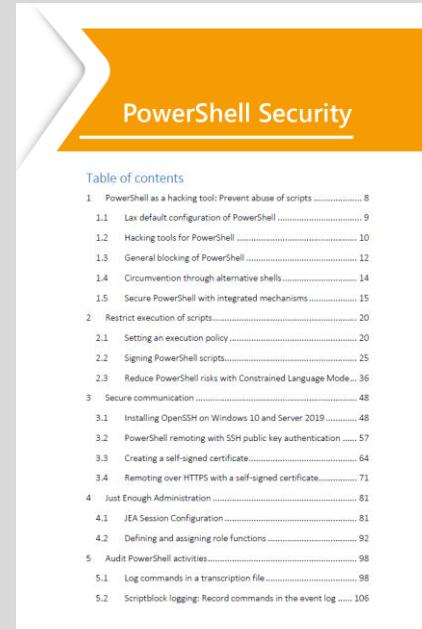
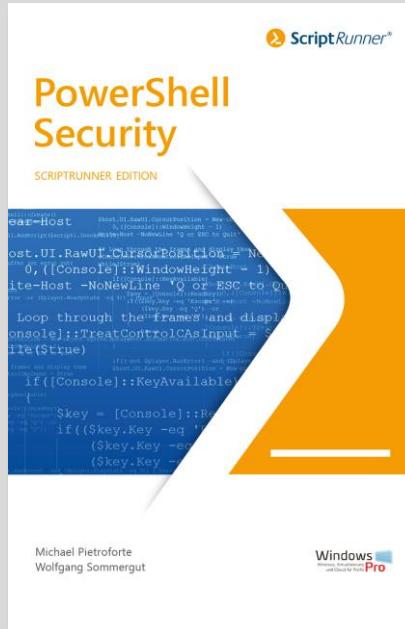
- Running scripts:** 3 (indicated by a large orange number "3").
- Script status chart:** A horizontal bar chart showing 3 "Running" scripts and 0 "Queued" scripts.
- Script activity summary:**
 - Actions: 2
 - Queued: 0
 - Scheduled: 1
 - Queries: 1
- Advanced Active Directory Report:** A report window showing the progress of an "Advanced Active Directory Report". The log output is:

```
99: WARNING: Cannot resolve the manager, on the group 'Bass-AU'.
100: Done!
101: Working on Organizational Units Report...
102: Done!
103: Working on Users Report...
104: Done!
105: Working on Group Policy Report...
106: Done!
107: Working on Computers Report...
108: Done!
109: Compiling Report...
110:
```

A preview of the report results is visible on the right.
- Action filters:** Buttons for Actions (checked), Scheduled, Queued, and Queries.
- Filter by servers:** A dropdown menu.
- Table header:** Action or scripted query, Started, Target, Runtime, Started by, Server.
- Table row:** Simple Active Directory Report, a few seconds ago, AD local, Running..., COMPANY\tina, ScriptRunner.

Free ebook: PowerShell Security

lp.scriptrunner.com/en/powershell-security-guide



ScriptRunner and Azure



Managing Azure resources
Trigger Azure Runbooks, etc.

Running MS Graph queries

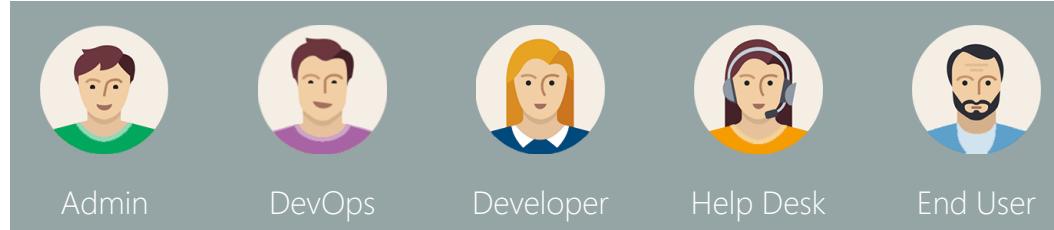
Running Resource Graph queries

Running Data Explorer queries

ScriptRunner login with
Azure AD accounts



Unlock the Potential of PowerShell across your organization



Unlock the Power of PowerShell across your organization



Manager
Our organization becomes more productive

Deliver great scripts in a secure environment



DevOps

Delegate recurring tasks and save time



Administrator

Deliver more & better services in less time



HelpDesk



Developer

Develop scripts for more use cases/users



EndUser

Faster task completion with self-services



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to the test.
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Let's talk about your
automation use cases.
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AMA

Ask Me Anything Session

SPECIAL GUEST
THOMAS MAURER



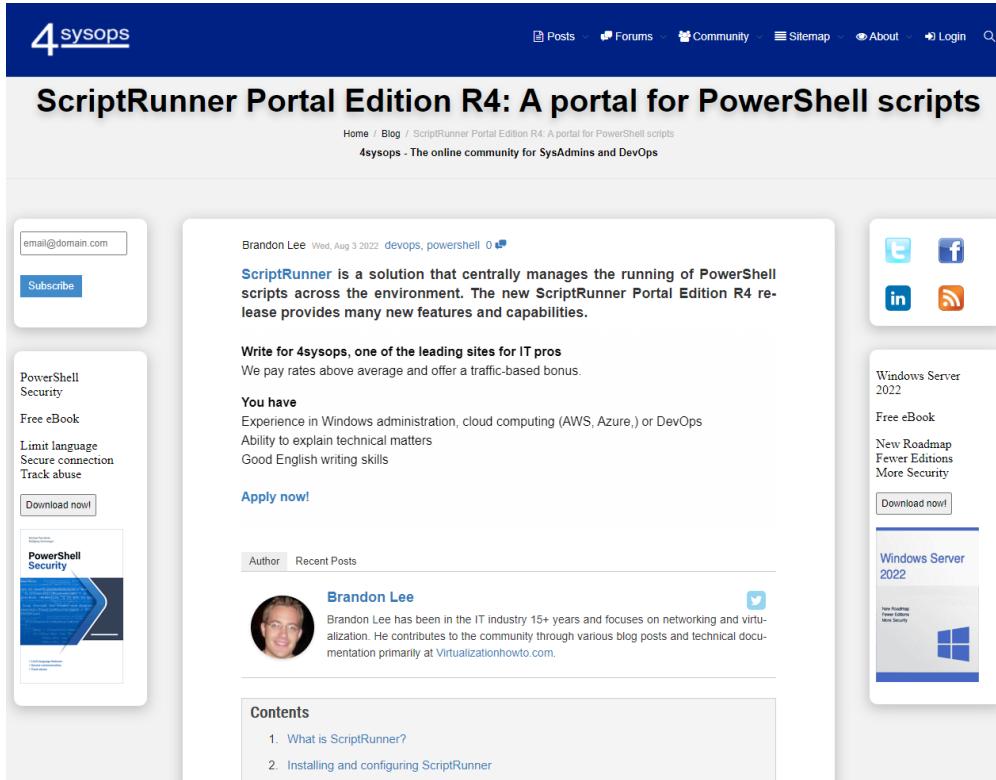
With Heiko Brenn & Markus Hipp

Live: Friday, October 28th | 10 am EDT | 3 pm BST | 16:00 CEST



ScriptRunnerPowerShell





The screenshot shows a blog post on the 4sysops website. The title is "ScriptRunner Portal Edition R4: A portal for PowerShell scripts". The author is Brandon Lee, posted on Wed, Aug 3 2022. The post discusses ScriptRunner as a solution for managing PowerShell scripts across environments. It highlights the new features in R4, such as a traffic-based bonus for writing for the site. The post includes a sidebar for PowerShell Security, a free eBook download, and a call to apply for writing. Below the post is a bio for Brandon Lee and a contents section.

Brandon Lee Wed, Aug 3 2022 devops, powershell 0

ScriptRunner is a solution that centrally manages the running of PowerShell scripts across the environment. The new ScriptRunner Portal Edition R4 release provides many new features and capabilities.

Write for 4sysops, one of the leading sites for IT pros
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 **Brandon Lee** 
Brandon Lee has been in the IT industry 15+ years and focuses on networking and virtualization. He contributes to the community through various blog posts and technical documentation primarily at [Virtualizationhowto.com](#).

Contents

1. What is ScriptRunner?
2. Installing and configuring ScriptRunner



<https://4sysops.com/archives/scriptrunner-portal-edition-r4-a-portal-for-powershell-scripts/>

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Ludwig-Erhard-Straße 2 | 76275 Ettlingen | Germany

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