

2023 – It's time to unlock the power of PowerShell

Automate. Delegate. Relax.

Heiko Brenn  @heikobrenn



Happy SysAdmin Day







ScriptRunner®

The #1 for PowerShell Management

Unlock the Power of PowerShell

+49

2014

25

1924

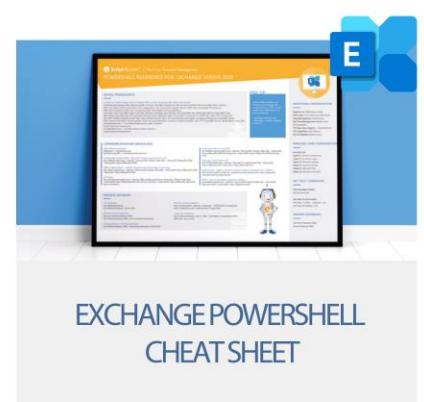
Hundreds of free
and ready-to-use
PowerShell scripts.

github.com/scriptrunner/ActionPacks



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lp.scriptrunner.com/en/powershell-goodies



About Heiko



PowerShell Enthusiast and
ScriptRunner Product Expert

Head of International Business
North America | BeNeLux | Scandic

In the IT industry for 25+ years
IT Admin | Consultant | Product Manager

First PowerShell experience:
Exchange 2007

Co-Founder of PowerShell User Group
Rhein-Neckar (@PSUGRheinNeckar)



Let's get in touch



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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



“ScriptRunner is an excellent management, reporting, and auditing tool for controlling the use of PowerShell in corporate networks.”

4sysops.com/archives/scriptrunner-portal-edition-r5new-query-configuration-and-action-configuration/



The Potential of PowerShell

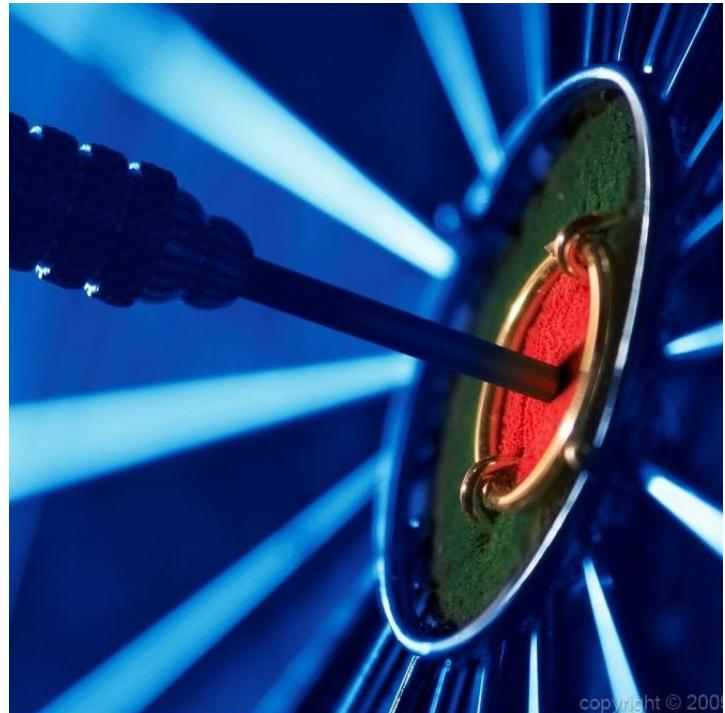
Very mature command-line shell
and scripting language for IT automation

Great framework to automate
recurring tasks consistently

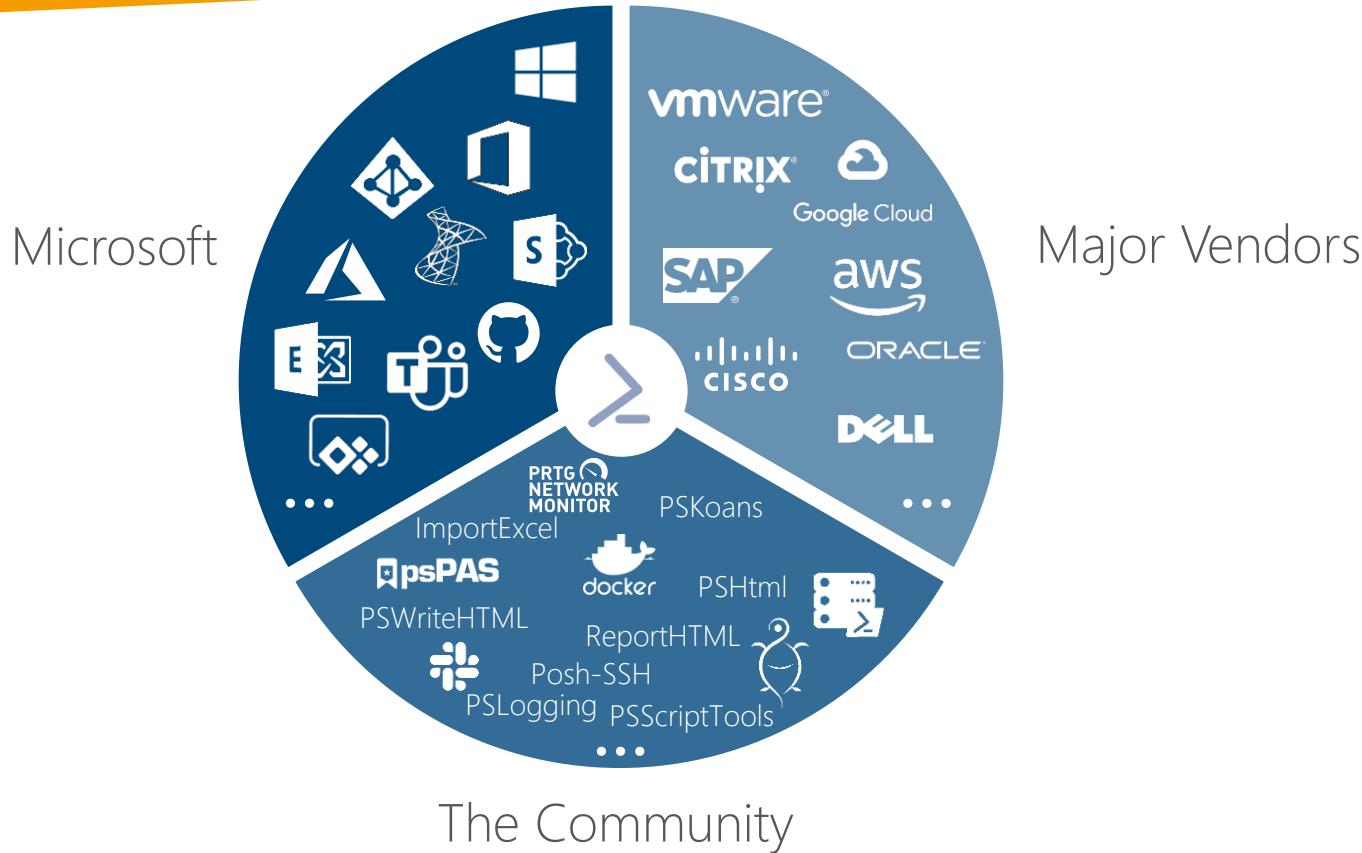
Simplifies administration of your
entire IT infrastructure

Strong commitment from Microsoft
and many other vendors

Very vital worldwide community



The PowerShell Ecosystem



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

The power of PowerShell remains
untapped



Unlock the power of PowerShell in 5 steps



Centralized script and module management & execution

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 displays 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 shows a list of scripts under the "Scripts" tab, with 9 of 1282 scripts listed. The list includes entries like "Get-EOOutOfOffice.ps1", "Set-EOOutOfOffice - Copy (2).ps1", "Set-EOOutOfOffice - Copy.ps1", "Set-EOOutOfOffice.ps1" (selected), "Set-EOOutOfOffice.ps1", "Set-EOOutOfOffice.orig.ps1", "TeamsWithOutOwner-Scheduled.ps1", "TeamsWithOutOwner.ps1", and "Webinar_Set-ExOutOfOffice.ps1". A modal window for "Set-EOOutOfOffice.ps1" is open, showing tabs for "Public", "Save", "Check in script", and "Revoke script editing". The "Code editor" tab is active, displaying the PowerShell script code:

```
[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'
}
}
```

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



Centralized credential management



Credentials Showing 23 of 23 Credentials

+ Create

Create credential

User credential or client secret
Use name and password or secret

WinRM client certificate
Use a WinRM client certificate from the local certificate store

Password server
Retrieve the secret from a central password server

PowerShell Secret Management
Retrieve the secret from the Secret Management vault (experimental)

SSH key
Use an existing SSH key file or create a new one

Used by

- AzureVM Credentials
- Exchange Service Account
- Exchange Service Account (Pleasant)
- GitHub
- Hyper-V Service Account
- Microsoft Graph Target
- MyActiveDirectory
- O365 Tenant Service Account

Save Delete

Exchange Service Account (Pleasant)

Configuration General User secret reference

Information Used by

Save Run test Delete

MS Graph Target 007

Microsoft services Microsoft services

Configuration General Microsoft services

Information Advanced settings Used by

Activate service

Microsoft Graph

Sign-in method Certificate Client secret

Tenant ID

Application ID

Credential

Uses the credential selected above which must contain the client secret as password.

PowerShell module Microsoft.Graph.Mail

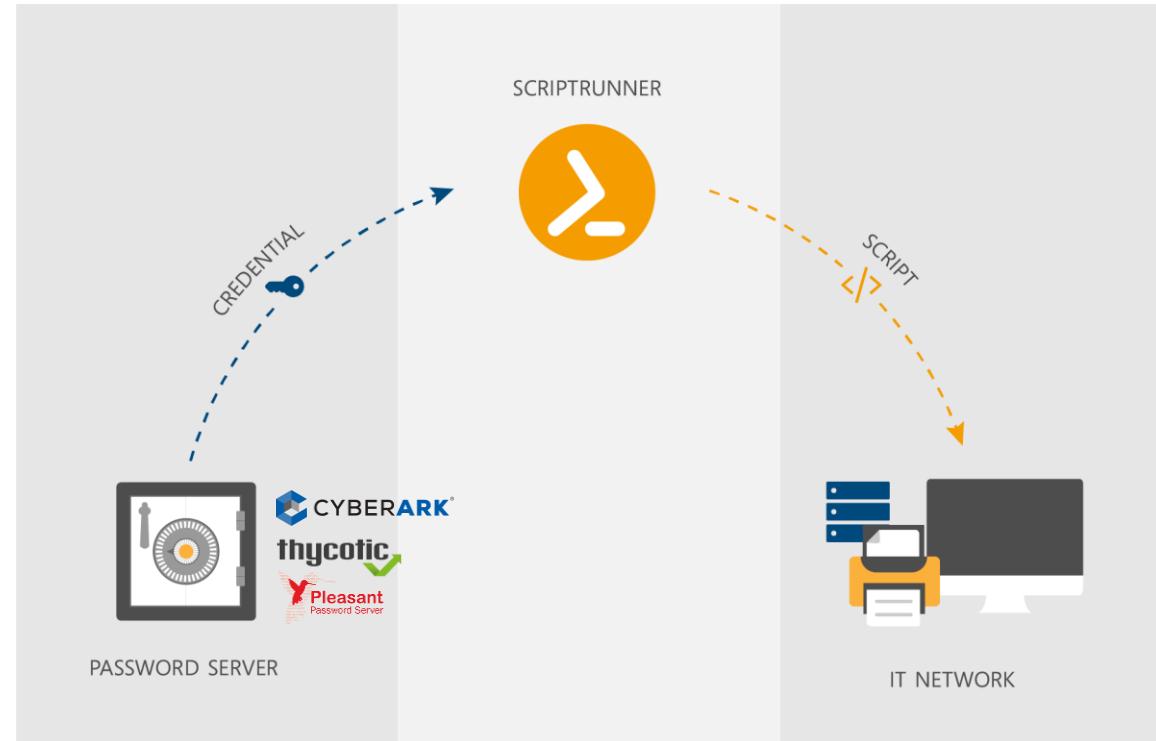
Must be installed on the execution host

Deactivate service

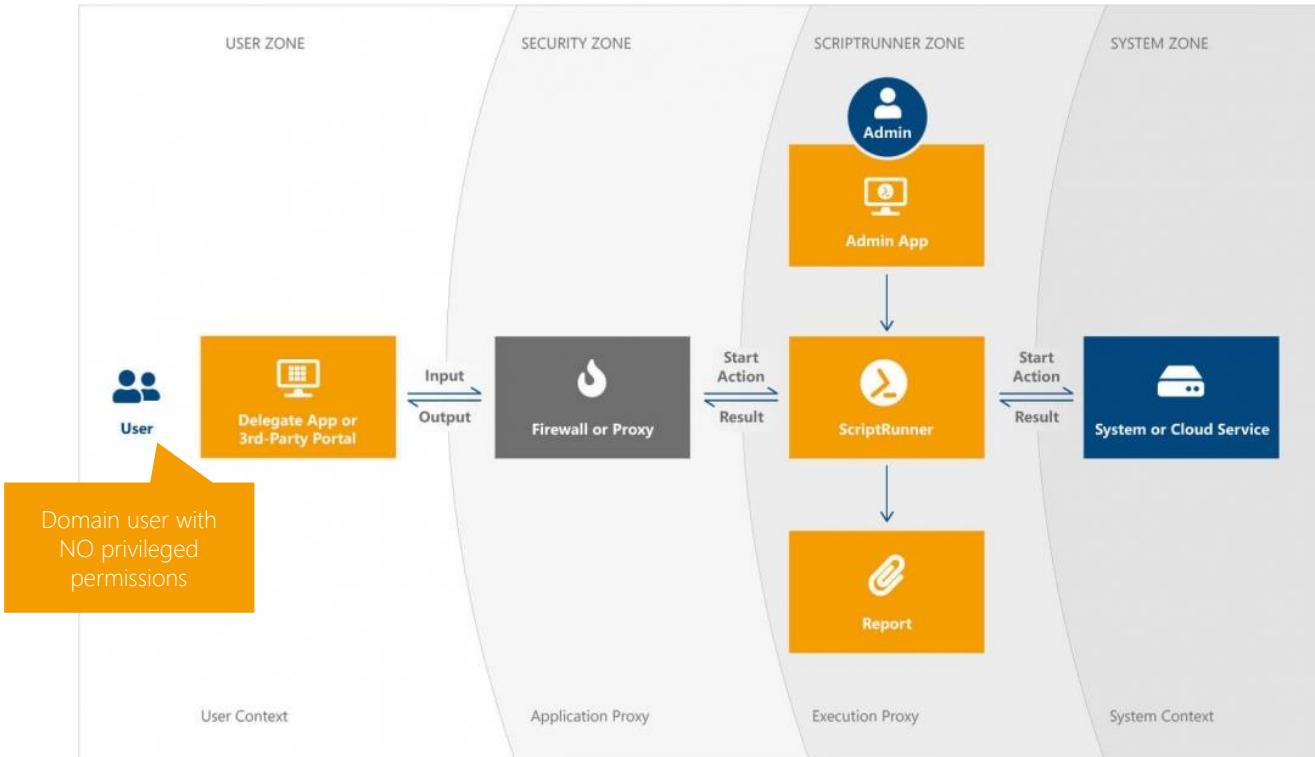
Tip
Notes on authentication and authorization for the service:
To use the 'Certificate' option, store the certificate in the local certificate store. To use the 'Client Secret' option, configure the name and secret under Credentials. In both cases, a service principal or the registered ScriptRunner service must be set up in the tenant with the respective permission roles. If an account is used, it must be assigned the permission roles and must not be enabled for multi-factor authentication (MFA).
[Microsoft documentation](#)

The screenshot displays the ScriptRunner web interface for managing credentials. On the left, a sidebar lists various credential types and their usage across different services. The main area shows two detailed credential configurations: 'Exchange Service Account (Pleasant)' and 'MS Graph Target 007'. Each configuration page includes tabs for 'General', 'Advanced settings', and 'Information'. The 'MS Graph Target' page also features sections for 'Microsoft services', 'Sign-in method' (with tabs for 'Certificate' and 'Client secret'), and 'PowerShell module'. A 'Tip' section provides notes on authentication and authorization, mentioning the use of certificates or client secrets and the setup of service principals in Azure Active Directory. A link to Microsoft documentation is also provided.

- 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



ScriptRunner – Secure Delegation



PowerShell for Everyone



The Script

Administrator: Windows PowerShell ISE

File Edit View Tools Debug Add-ons Help

Untitled3.ps1 Exchange_Webinar.ps1 Set-EOOutOfOffice.ps1 X

```
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.UserPrincipalName)
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 }
```

PS C:\Users\administrator.COMPANY>

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.

The background shows the main ScriptRunner dashboard with a "Run" button and a "Reports" section.

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" includes sections for General, Memberships, and Delegations (which is also highlighted in blue). The main panel on the right 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
- Script status chart:** A horizontal bar chart showing 3 scripts running and 0 queued. The legend indicates orange for Running and blue for Queued.
- Script details:** An Advanced Active Directory Report is currently executing. The log output shows the following progress:

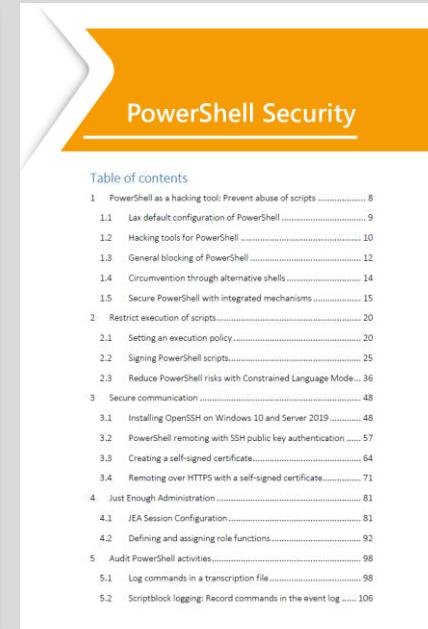
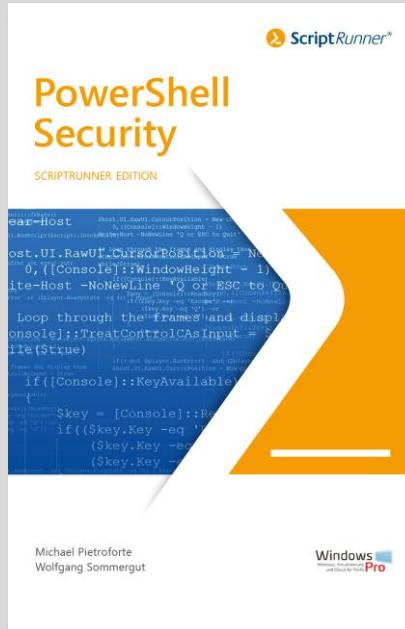
```
99: WARNING: Cannot resolve the manager, on the group 'Bass-AU'.
100: Done!
101: Working on Organizational Units Report...
102: Done!
103: Working on Users Report...
104: Done!
105: Working on Group Policy Report...
106: Done!
107: Working on Computers Report...
108: Done!
109: Compiling Report...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

A preview of the report results is visible on the right.
- Action summary:** 2 Actions, 0 Queued, 1 Scheduled, 1 Query.
- Filtering:** Buttons for Actions, Scheduled, Queued, and Queries, along with a 'Filter by servers...' dropdown.
- Table:** A table showing the execution details for the 'Simple Active Directory Report'.

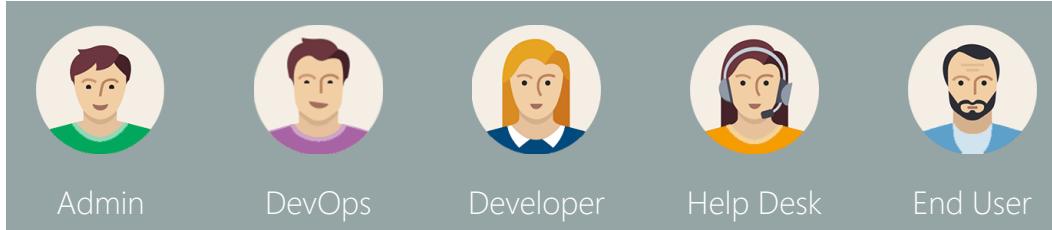
Action or scripted query	Started	Target	Runtime	Started by	Server
Simple Active Directory Report	a few seconds ago	AD local	Running...	COMPANY\tina	ScriptRunner

Free ebook: PowerShell Security

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



Unlock the Potential of PowerShell across your organization



Unlock the Power of PowerShell across your organization



Manager
My team 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



STANDARDIZATION, AUTOMATION AND DELEGATION OF RECURRING TASKS

AUTO-CREATED
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Saved

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ScriptRunner - Your #1 for PowerShell Automation.

Automation unlimited. Comprehensive control. All in one place.

ScriptRunner is designed to manage any system that is equipped with a PowerShell module. This compatibility encompasses an impressive variety of systems, services and devices. Including but not limited to Windows, Active Directory, Exchange, SharePoint, SQL Server, Azure, Microsoft 365, VMware or AWS and other cloud services. Orchestrate all systems!

ScriptRunner Connectors further enhance the platform's capabilities by facilitating seamless integration with third-party applications, workflows and services, such as ServiceNow, Ivanti, Jira, Okta, SAP and many more. Connectors allow you to extend the automation beyond PowerShell environment.

<https://www.scriptrunner.com/>

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automation use cases.
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with me.

lp.scriptrunner.com/meetings/heiko-brenn/demo-en





AMA

Ask Me Anything Session

SPECIAL GUEST
BRUCE PAYETTE

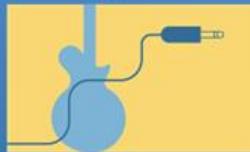


With Heiko Brenn & Markus Hipp

Live: Thursday, September 21st | 10 am EDT | 3 pm BST | 16:00 CEST



ScriptRunnerPowerShell



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