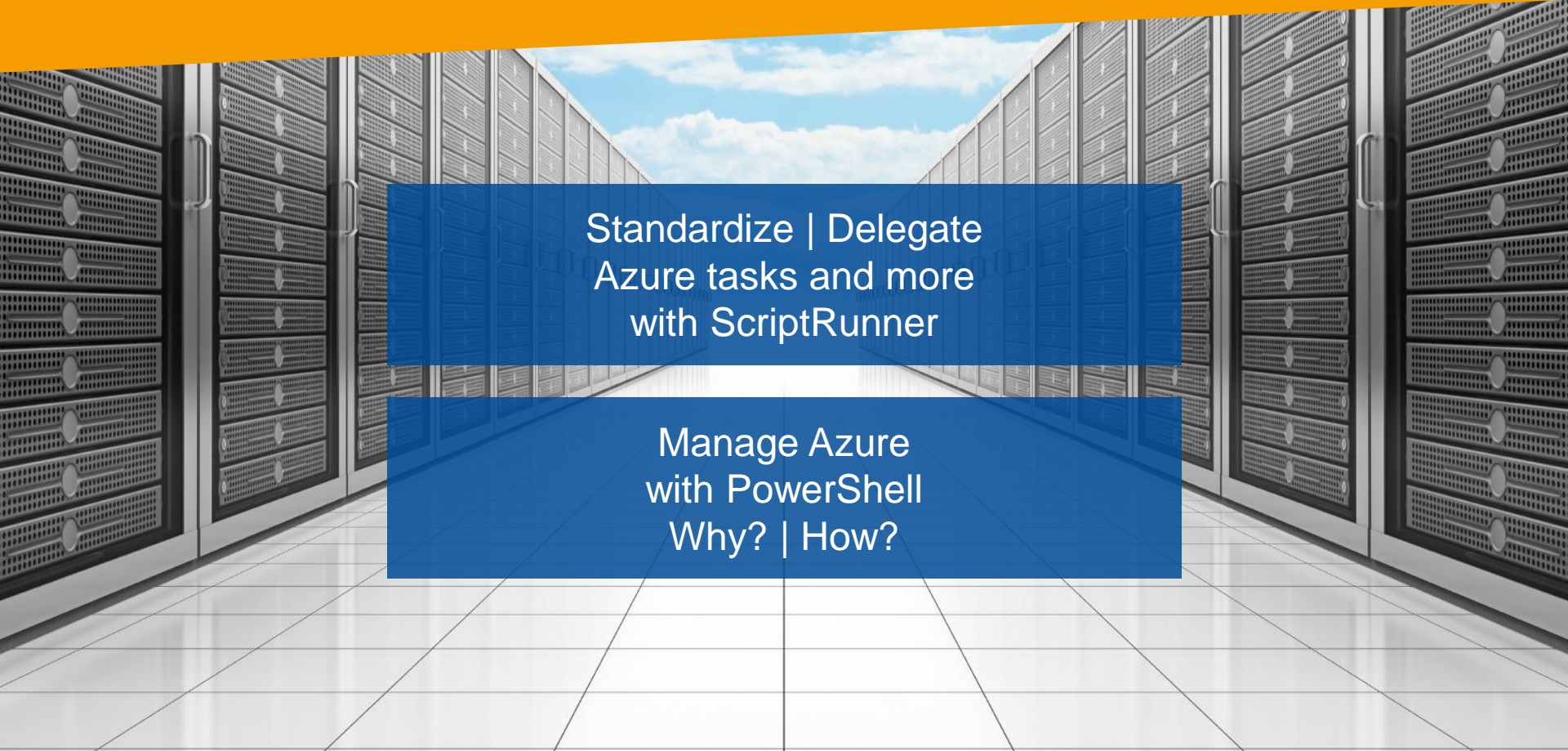


Get rid of recurring Azure management tasks with PowerShell in 5 steps

Automate. Delegate. Relax.

Heiko Brenn  @heikobrenn





Standardize | Delegate
Azure tasks and more
with ScriptRunner

Manage Azure
with PowerShell
Why? | How?





ScriptRunner®

The #1 for PowerShell Management

We Accelerate Your Automation Journey

76199

2014

24

1607



CENTRALIZED SCRIPTS AND MODULES MANAGEMENT

COMPREHENSIVE
MONITORING
AND REPORTING

SECURE
CREDENTIAL
ADMINISTRATION

INTERACTIVE, SCHEDULED
AND EVENT-DRIVEN
SCRIPT EXECUTION

AUTO-CREATED
USER-FRIENDLY
WEB FORMS

AUTOMATION AND DELEGATION
OF RECURRING TASKS



About me

ScriptRunner Product Expert &
Head of International Business

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

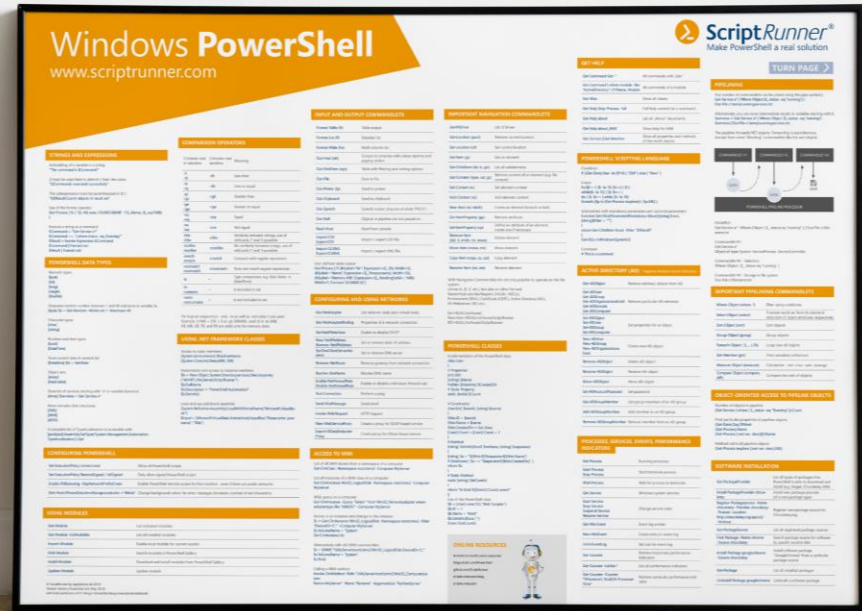
Music, music, music

linkedin.com/in/HeikoBrenn
github.com/HeikoBrenn

twitter.com/HeikoBrenn
heiko.brenn@scriptrunner.com



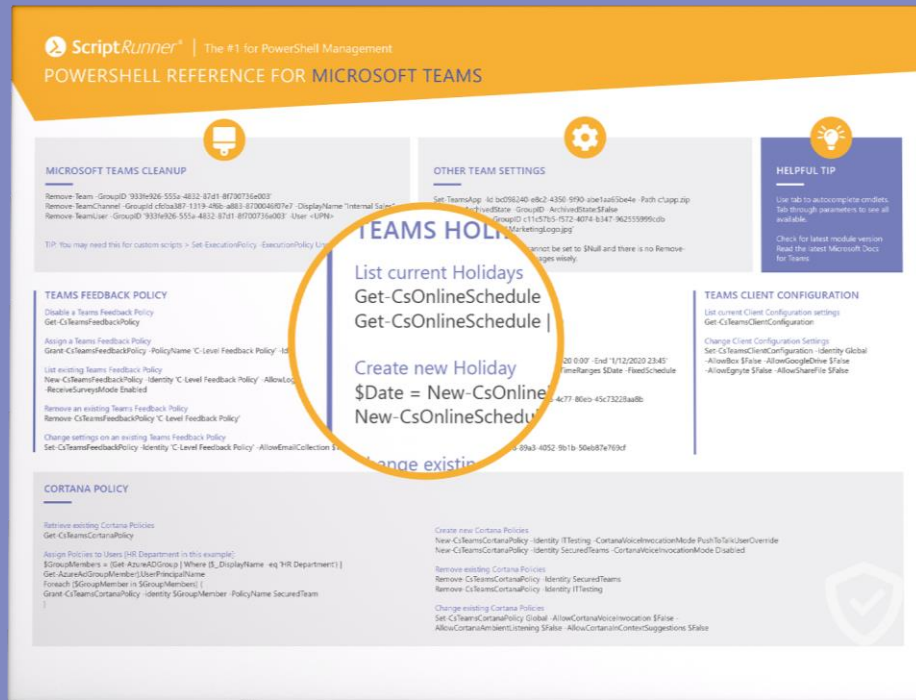
ip.scriptrunner.com/en/powershell-poster





Get your free 8-pages Teams PowerShell Cheat Sheet

ip.scriptrunner.com/en/teams-cheat-sheet



Manage Azure with PowerShell



Tools for Azure Management and Automation

Azure Portal

ARM
Templates

Azure
Cloud Shell

Azure
Automation

Azure
Bicep

Azure CLI

Azure
PowerShell
Module

Azure
Functions

Azure
Runbooks

...

The Potential of PowerShell

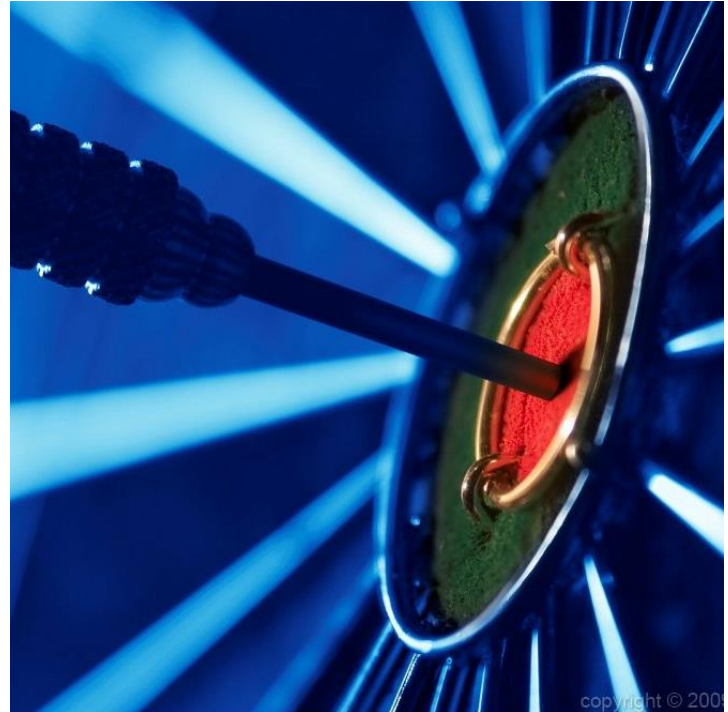
Very mature command-line shell
and scripting language for IT automation

Great framework to automate
recurring tasks consistently

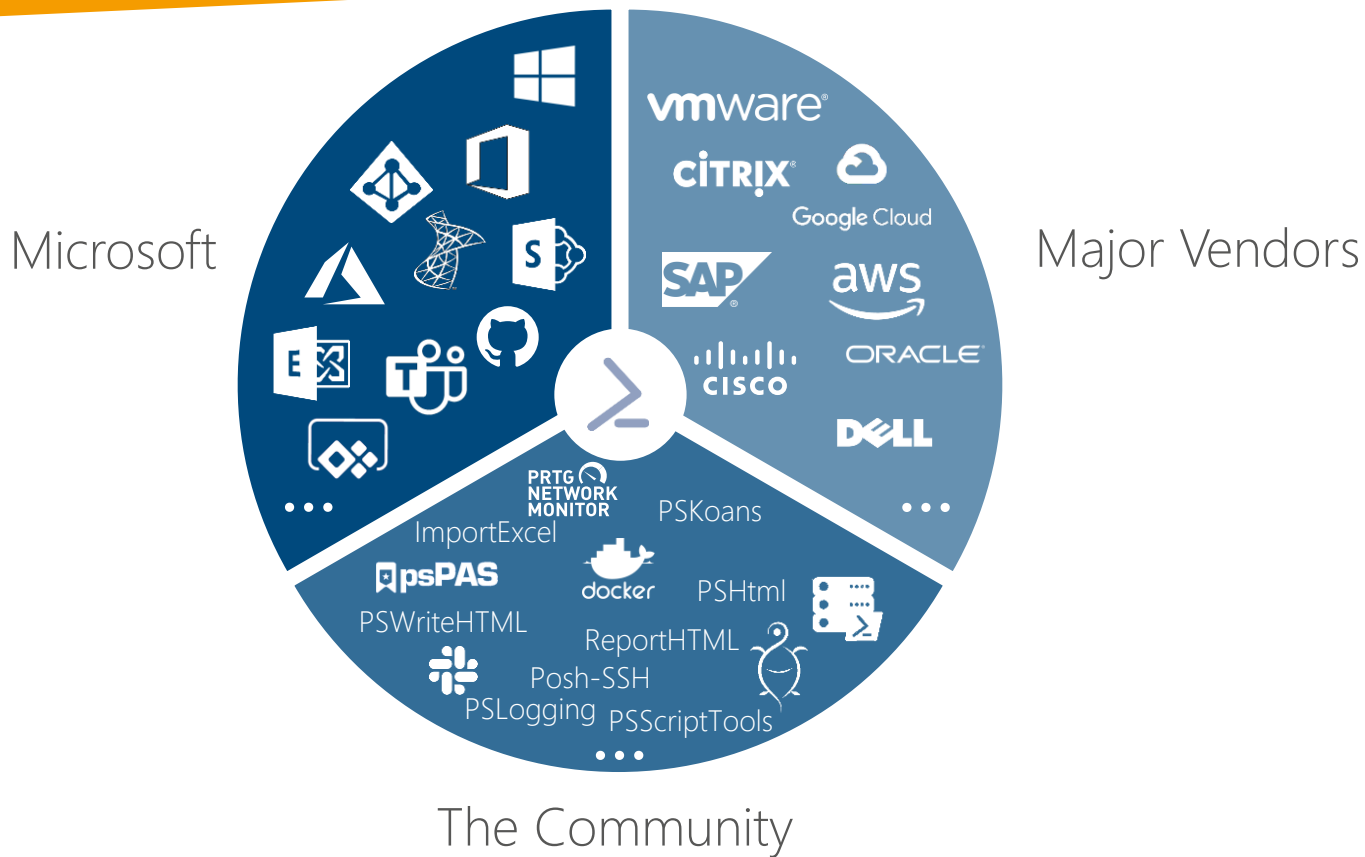
Simplifies administration of your
entire IT infrastructure

Strong commitment from Microsoft
and many other vendors

Very vital worldwide community



The PowerShell Ecosystem



Azure Cloud Shell – PowerShell Anywhere



- <https://shell.azure.com>
- No installation required
- Temporary Linux VM (Ubuntu)
- 20 minute timeout (not customizable)
- Azure mobile app support
- Automatically authenticated per user account
- Supports Bash and PowerShell 7
- Integration with docs.microsoft.com, Windows Terminal and VS Code
- Running one-liners and scripts ad-hoc
- „Editor“
- Limited module support
- Requires Azure file share -> cost

```
PS /home/heiko> .\get_azvm.ps1
```

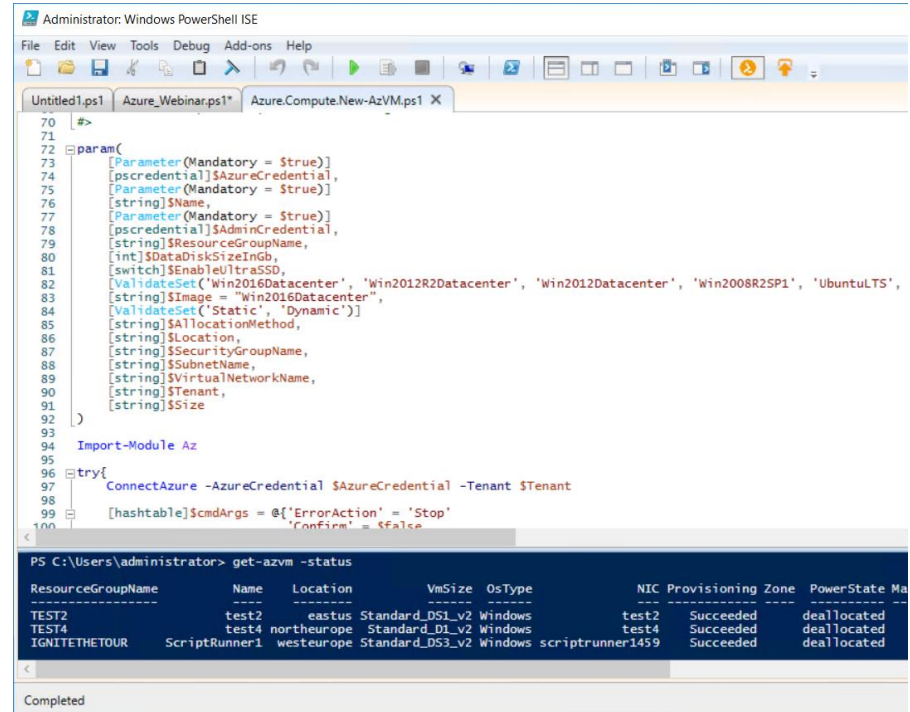
ResourceGroupName	Name	Location	VmSize	OsType	NIC	Provisioning	Zone	PowerState	Maintenance
IGNITETHETOUR	ScriptRunner1	westeurope	Standard_DS3_v2	Windows	scriptrunner1459	Succeeded		deallocated	

```
PS /home/heiko> get-module
```

ModuleType	Version	Name	ExportedCommands
Script	1.5.1	Az.Accounts	{Add-AzEnvironment, Clear-AzContext, Clear-AzDefault, Connect-AzAc
Script	1.8.0	Az.Compute	{Add-AzContainerServiceAgentPoolProfile, Add-AzImageDataDisk, Add-
Script	1.7.0	Az.Network	{Add-AzApplicationGatewayAuthenticationCertificate, Add-AzApplicat
Script	1.3.1	Az.Resources	{Add-AzADGroupMember, Export-AzResourceGroup, Get-AzADAppCredentia
Script	1.2.0	Az.Storage	{Add-AzRmStorageContainerLegalHold, Add-AzStorageAccountManagement

Azure PowerShell Module(s)

- Azure AZ module
 - First release Dec 2018
 - Current version: 7.2.0
- Many Az.* „sub-“ modules
- AzureAD module
 - First release Nov 2016
 - Current version: 2.0.2.140
- Module installation required
 - Install-module Az
 - Install-module Az.Compute
 - Install-module AzureAD
- Windows PowerShell | PowerShell 7
- Full PowerShell experience



The screenshot shows the Windows PowerShell ISE interface. The top pane displays a PowerShell script with parameters for Azure credentials, resource group, VM name, location, and image. The bottom pane shows the command `get-azvm -status` and its output, which is a table of VM instances.

```
param(
    [Parameter(Mandatory = $true)]
    [pscredential]$AzureCredential,
    [Parameter(Mandatory = $true)]
    [string]$Name,
    [Parameter(Mandatory = $true)]
    [pscredential]$AdminCredential,
    [string]$ResourceGroupName,
    [int]$DataDiskSizeInGb,
    [switch]$EnableUltraSSD,
    [ValidateSet('Win2016Datacenter', 'Win2012R2Datacenter', 'Win2008R2SP1', 'UbuntuTS',
    [string]$Image = 'Win2016Datacenter',
    [ValidateSet('Static', 'Dynamic')]
    [string]$AllocationMethod,
    [string]$Location,
    [string]$SecurityGroupName,
    [string]$SubnetName,
    [string]$VirtualNetworkName,
    [string]$Tenant,
    [string]$Size
)

Import-Module Az

try{
    Connect-Azure -AzureCredential $AzureCredential -Tenant $Tenant
} catch {
    [hashtable]$cmdArgs = @{'ErrorAction' = 'Stop'
    'Confirm' = $false
}

PS C:\Users\administrator> get-azvm -status
```

ResourceGroupName	Name	Location	VmSize	OsType	NIC	Provisioning Zone	PowerState
TEST2	test2	eastus	Standard_DS1_v2	Windows	test2	Succeeded	deallocated
TEST4	test4	northeurope	Standard_D1_v2	Windows	test4	Succeeded	deallocated
IGNITETHETOUR	ScriptRunner1	westeurope	Standard_DS3_v2	Windows	scriptrunner1459	Succeeded	deallocated

Some Azure PowerShell Use Cases

Manage Azure VMs | RGs

Manage Azure AD Users | Groups

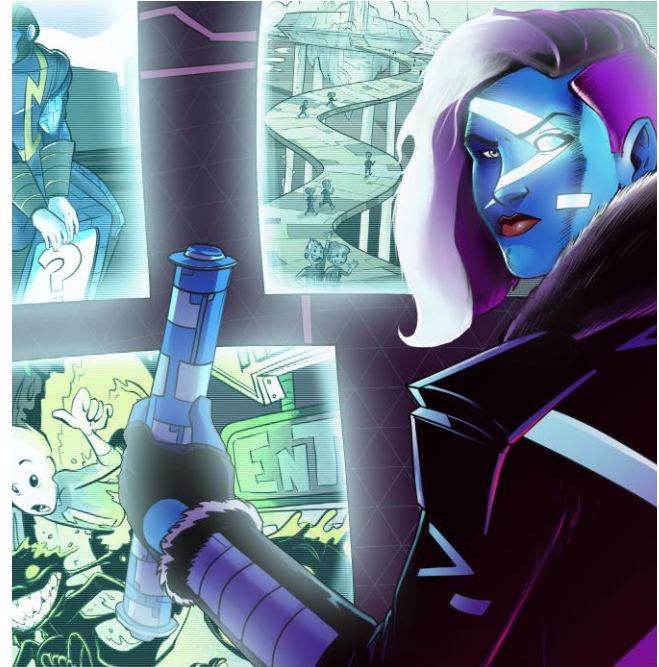
Bulk Operations

Create Reports

Don't care about
Microsoft's UI changes 😊



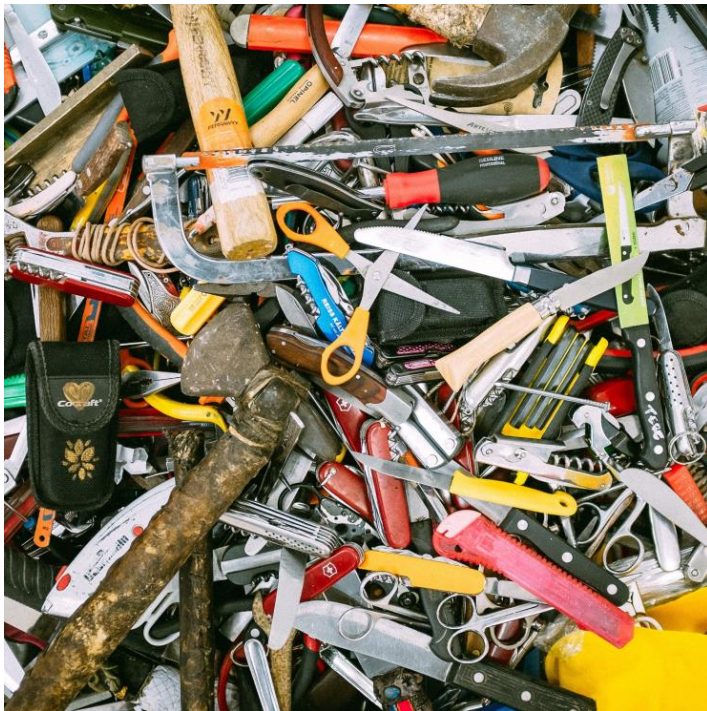
- Install Az module
- Connect-AzAccount
- Start with first Az Commandlets
- From One-Liner to Scripts



Standardize & Delegate Azure tasks (and more) with ScriptRunner



Two ways of using PowerShell



Does this remind you of the way PowerShell is used in your organization today?



„De-centralized“ PowerShell landscape

PowerShell know-how bottleneck

No org-wide secure credential management

PowerShell is only used in expert circles

The potential of PowerShell remains untapped



What it takes to successfully automate with PowerShell in the enterprise



Standardization

Centralization & Security

Easy accessibility for non-IT experts

Monitoring

Integration



Automate & Delegate in 5 Steps



Centralize your PowerShell scripts and modules



Manage credentials & permissions securely



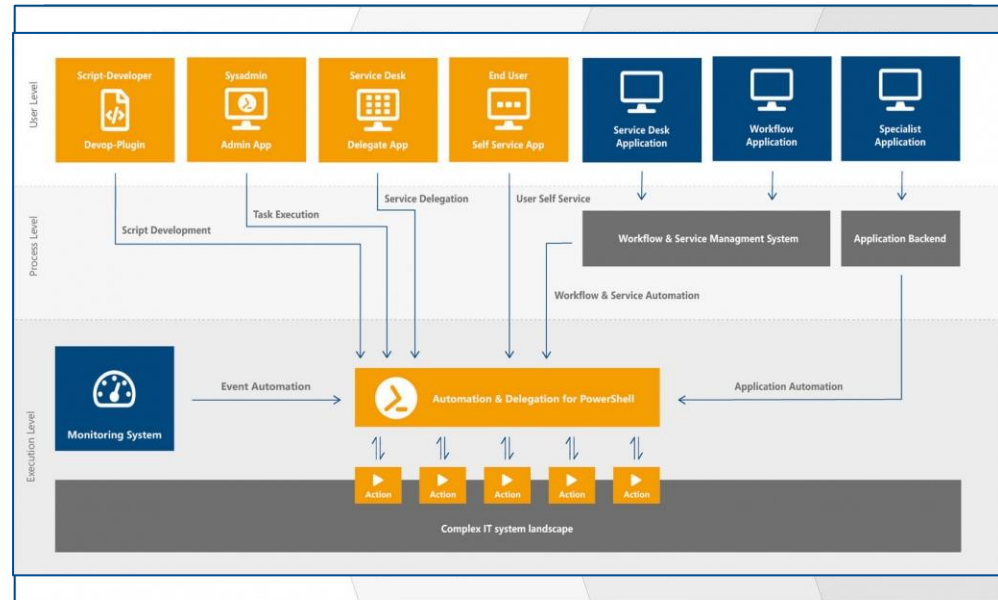
Automatically transform PowerShell scripts into Web GUIs



Delegate recurring tasks to help desk and end users



Integrate with ITSM, Monitoring & Workflow systems and more



Free ebook: PowerShell Security

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

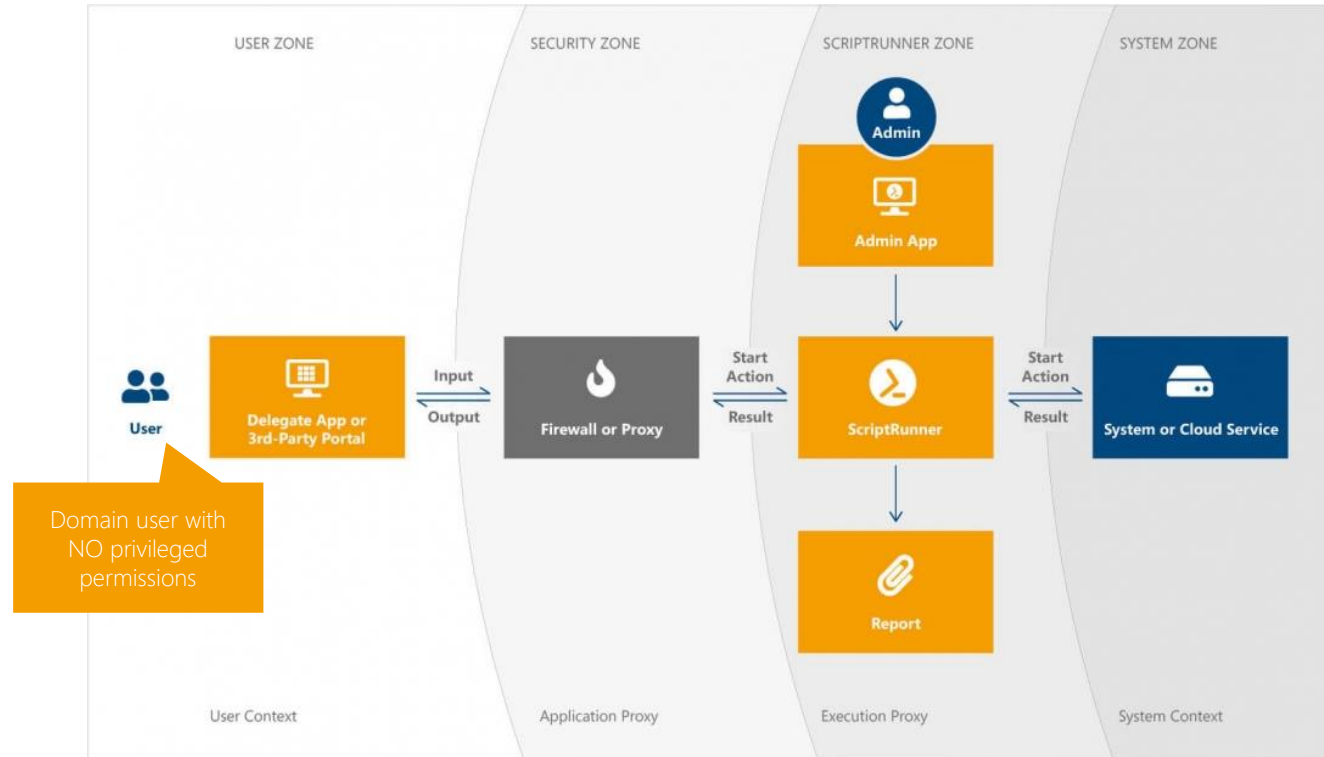


PowerShell Security

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ScriptRunner – Secure Delegation



ScriptRunner test report from a Microsoft MVP



Adam Bertram aka Adam The Automator
Microsoft MVP Cloud and Datacenter Management

"ScriptRunner is a master of organizing, categorizing and delegating scripts."







"ScriptRunner is a real DevOps tool for PowerShell scripters."

"Compared to large automation platforms, ScriptRunner is significantly cheaper."

"to get the same functionality of ScriptRunner, it would require several applications to get a similar feature set."

"If you are looking into automating your administration and support processes easily and securely, you will find a powerful and professional tool here."

<https://www.adamtheautomator.com/scriptrunner-bringing-powershell-to-devops/>

	Actions	Activate OutOfOffice
	Scripts	Set-OutOfOffice.ps1
	Credentials	Service account with necessary permissions
	Targets	Exchange, Exchange Online
	Queries	Select mailboxes Select notification template
	Delegation	Help desk team, HR users

Unlock the Potential of PowerShell across your organization



Admin



DevOps



Developer



Help Desk



End User



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



Develop scripts for
more use cases/users



Developer



EndUser

Faster task completion
with self-services

CENTRALIZED SCRIPTS AND MODULES MANAGEMENT



Put ScriptRunner
to the test.
30 days for free.

lp.scriptrunner.com/en/demo-download



Let's talk about your
automation use cases.
Book an online session
with me.

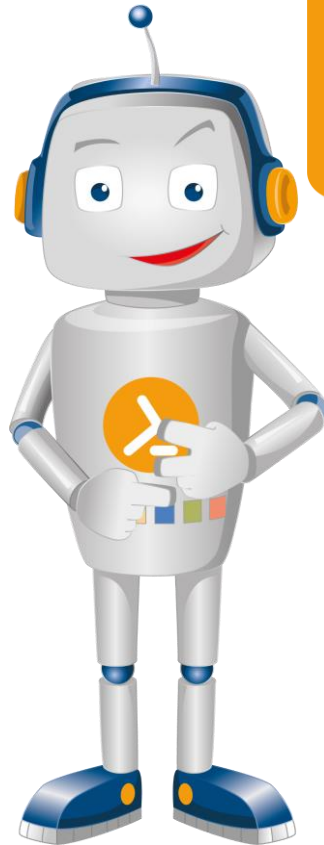
[lp.scriptrunner.com/meetings/heiko-
brenn/demo-en](https://lp.scriptrunner.com/meetings/heiko-brenn/demo-en)



Put
ScriptRunner
to the test.
30 days for
free.

lp.scriptrunner.com/en/demo-download

www.scriptrunner.com



Thank you!

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