

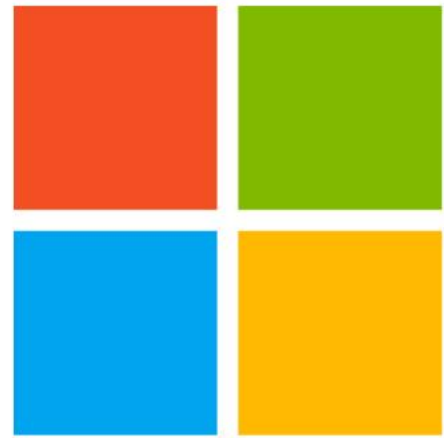
Master PowerShell with Azure Automation Accounts



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chat and discuss...

<https://bit.ly/gab-at-discord>



Visit the **#azure-heroes** channel
to claim your *Learner* badge and
immortalize your #GlobalAzure
visit in the Ethereum Blockchain

Multiple ways to automate with scripts or code...

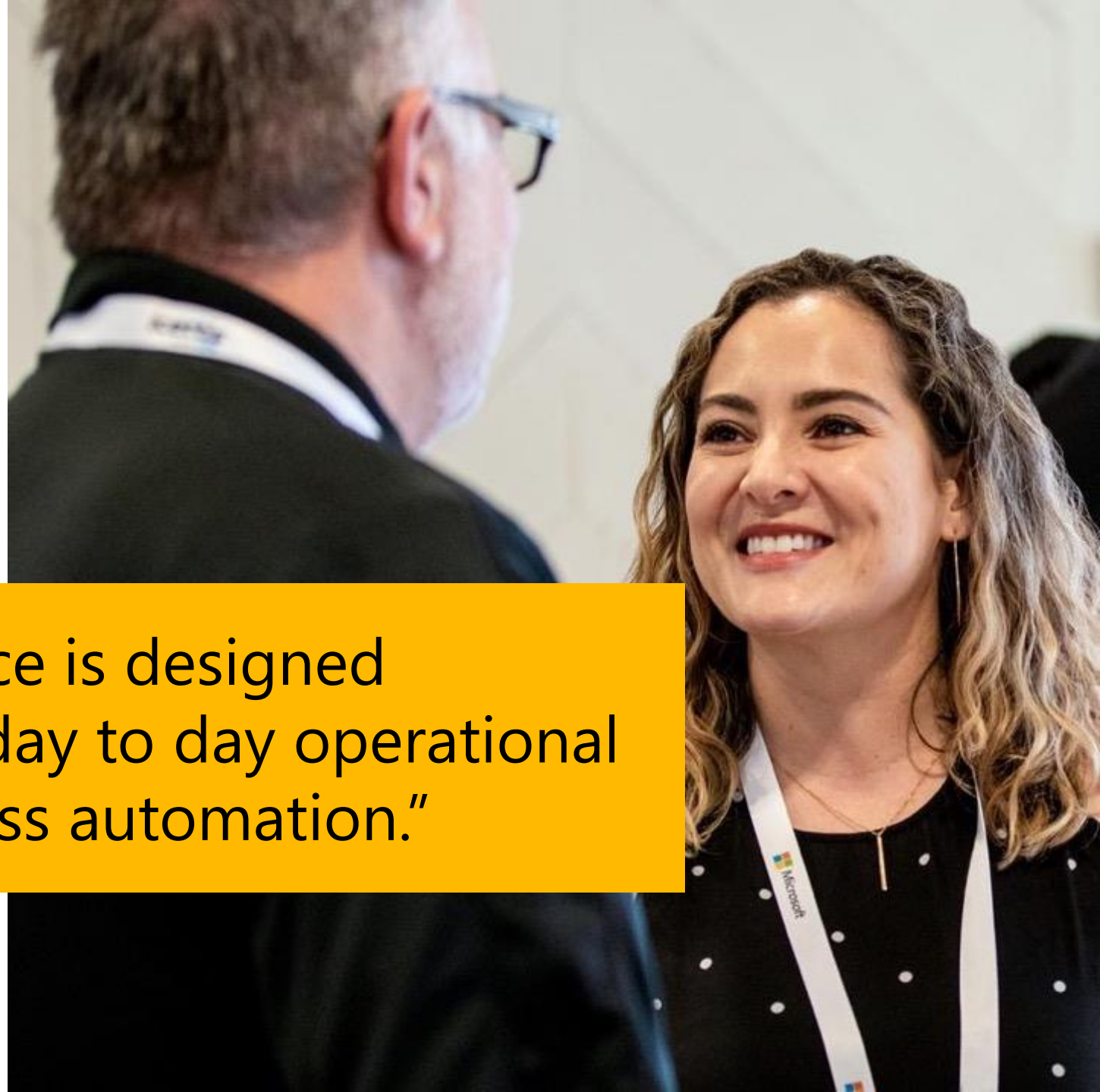
...once you have your automation, deploy to:

- Azure Logic Apps (& Power Automate)
- **Azure Automation Accounts**
- Azure Functions
- Web APIs (REST endpoints...)
- ...



Azure Automation Accounts

"Azure Automation service is designed specifically to help with day to day operational challenges around process automation."



FileEditSelectionViewGoRunTerminalHelp

EXPLORER

1

OPEN EDITORS1 UNSAVED

a4-StartOrStopVM.ps1

a5-CreateCommSite.ps1

a7-produce-error.ps1

_Guide.md

a3-Storage.ps1

a6-run-webhook.ps1

a6-CreateCommSite-Webhook...

Preview _Guide.md

AUTOMATIONACCOUNTS

demotenant

div

video

_Guide.md

.gitignore

a1-HelloWorld.ps1

a2-Variables.ps1

a3-Storage.ps1

a4-StartOrStopVM.ps1

a5-CreateCommSite.ps1

a6-CreateCommSite-Webhook.ps1

a6-run-webhook.ps1

a7-produce-error.ps1

LICENSE

README.md

a4-StartOrStopVM.ps1

a5-CreateCommSite.ps1

a7-produce-error.ps1

_Guide.md

a3-Storage.ps1

a6

a5-CreateCommSite.ps1 > ...

```
1 #-----
2 # a5-CreateCommSite.ps1 by @atwork
3 # Sample using SPO and parameters. Create a new SPO Communication Site with the SPO module.
4 # Import the SPO module before use.
5 #-----
6 param
7 (
8     [Parameter (Mandatory=$true)]
9     [string] $title = "GlobalAzure10",
10    [Parameter (Mandatory=$false)]
11    [int] $quotaInGB = 1,
12    [Parameter (Mandatory=$false)]
13    [string] $owner = "admin@M365x251516.onmicrosoft.com"
14 )
15
16 Write-Output "$(Get-Date) Starting CreateCommSite..."
17 $tenant = Get-AutomationVariable -Name "tenantname"
18 $cred = Get-AutomationPSCredential -Name 'NestorW'
19
20 Connect-SPOService "https://$tenant-admin.sharepoint.com"
21
22 $siteUrl = "https://$tenant.sharepoint.com/sites/$title"
23 Write-Output "$(Get-Date) Creating $siteUrl with Template
24
25 New-SPOSite -Title $title -Template "STS#3" -Quota ($quotaInGB
26
27 Write-Output "Enable external sharing with
28 Set-SPOSite -Identity $siteUrl `
29     -Owner $owner `
30     -SharingCapability ExternalUserSharing
```



PROBLEMS2OUTPUTDEBUG CONSOLETERMINAL

===== PowerShell Integrated Console =====

PS C:\TFSRepo\Session\AutomationAccounts>

Microsoft 365 Management

Automate!



Schedule your custom tasks



Use them for workflows



Streamline the creation and use of
collaboration features



Leverage self-service capabilities to
reduce costs and save time

Demo

Working with an Automation Account



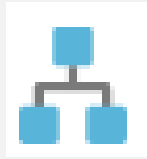
How do Azure Automation Accounts work?

Shared
Modules
Variables

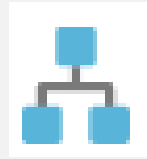


Automation Account

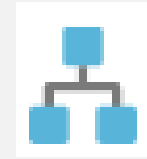
Connectivity
Credentials & Certificates
Connections



Runbook A



Runbook B



Runbook C



Deployed
& executed










Virtual Machine

Demo

- Create an Automation Account
- Work with Scripts
- Add Runbooks Gallery
- Add Modules
- Secure your credentials
- Working with Webhooks
- Log Analytics




Note what happens when a new AA is created...

admin@M365x251516....
CONTOSO251516

Notifications ×


[More events in the activity log →](#) [Dismiss all](#) ▼



New Azure Run As account (service principal) created ×

Azure Run As account (service principal) for account 'MITT-Copenhagen' was created successfully and assigned the Contributor role to this user at the subscription level.

a few seconds ago



Deployment succeeded ×

Deployment '[Microsoft.AutomationAccount](#)' to resource group '[MITT-M365](#)' was successful.

[Go to resource](#) [Pin to dashboard](#)

a few seconds ago

Modules



Run, Schedule, Webhooks



Logging





Home > GlobalAzure2 | Logs



GlobalAzure2 | Logs

Automation Account



Search (Ctrl+J)



Event grid



Start/Stop VM



Account Settings



Properties



Keys



Pricing



Source control



Run as accounts



Settings



Locks



Export template



Monitoring



Alerts



Metrics



Diagnostic settings



Logs



Support + troubleshooting



New support request



Welcome to Log Analytics

Azure Monitor Log Analytics is a tool used to produce insights from Azure Monitor logs.

[Get Started](#)

Learn more about Log Analytics

Quickly retrieve, consolidate, and analyze all data collected into Azure Monitoring Logs. Save your queries for future use, pin query results to Azure Dashboards, and create log alerts.



Query Language

Log Analytics uses a version of the Kusto Query language (KQL) that is suitable for both simple and advanced log queries using functionality such as aggregations, joins, and smart analytics.

Monitoring and Alerting



GlobalAzure1LogAnalyticsWorkspace | Logs

Log Analytics workspace

- Search (Ctrl+/)
- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Settings
- Locks
- Export template
- Advanced settings
- General
- Quick Start
- Workspace summary
- View Designer
- Workbooks
- Logs
- Solutions
- Saved searches
- Pricing tier
- Usage and estimated costs
- Properties
- Service Map
- Workspace Data Sources

6-Alert on f... 1-AzureDiag... 5-Runbook ... 3-Runbook ...

GlobalAzure1LogAnalyticsW... Select Scope

Tables Filter

Search

Group by: Solution Filters: not selected

- Favorites
- You can add favorites by clicking on the ☆ icon
- Change Tracking
- LogManagement
- Functions

Run Time range : Last 24 hours

AzureDiagnostics
| where ResourceProvider == "MICROSOFT.AUTOMATION" and Category == "JobStreams" and StreamType_s == "Error"
| order by TimeGenerated desc

Results Chart Columns Display time (UTC+00:00)

Completed. Showing results from the last 24 hours. 00:00:00.778 18 records

Drag a column header and drop it here to group by that column

TimeGenerated [UTC]	Tenant_g	ResourceId
> 4/23/2020, 7:12:54.195 PM	3734cf14-05d3-4aa7-a1da-fd42991d3895	/SUBSCRIPTIONS/FD8E6A50-F198-4F9B-83DE-9E93F4E37C36/RESOU...
4/23/2020, 6:47:12.476 PM	596c6b5a-49fc-4934-b250-5e42d334fc...	/SUBSCRIPTIONS/FD8E6A50-F198-4F9B-83DE-9E93F4E37C36/RESOU...
...		
TenantId	7005d3df-fe12-4c58-922e-f22719efbf78	
SourceSystem	Azure	
TimeGenerated [UTC]	2020-04-23T18:47:12.476Z	
Tenant_g	596c6b5a-49fc-4934-b250-5e42d334fc34	
ResourceId	/SUBSCRIPTIONS/FD8E6A50-F198-4F9B-83DE-9E93F4E37C36/RESOURCEGROUPS/GLOBALAZURE/PROVIDERS/M	
OperationName	Job	
ResultType	In Progress	
ResultDescription	New-SPOSite : A site already exists at url https://m365x251516.sharepoint.com/sites/GlobalAzure22. At line:34 char:13	
CorrelationId	543567ae-043c-46d1-8ebb-f2b88fbcacfe	
RunbookName_s	a6-CreateCommSite-Webhook	

Query explorer

Filter by name or path...

- Favorites
- Saved Queries
- ChangeTracking
- Info
- 1-AzureDiagnostics
- 3-Runbook errors
- 5-Runbook errors - one job
- 6-Alert on failed
- 7-Alert on failed grouped
- 4-Runbook errors summariz...
- Solution Queries

[+ New alert rule](#) [Manage alert rules](#) [Manage actions](#) [View classic alerts](#) [Refresh](#) [Provide feedback](#)

Don't see a subscription? [Open Directory + Subscription settings](#)

Subscription * ⓘ

T9-MSDN dev15 (MPN, EventDemo) ▼

Resource group ⓘ

14 selected ▼

Resource ⓘ

▼

Time range ⓘ

Past 24 hours ▼

[Selected subscriptions](#) > [Selected resource groups](#) > globalazure1loganalyticsworkspace

Total alerts

5

Since 4/22/2020, 9:43:33 PM

Smart groups (Preview) ⓘ

0

0% Reduction

Total alert rules

2

Enabled 2

Action rules (preview) ⓘ

0





Enabled 0

[Learn More](#)

[About Alerts](#) 

Severity	Total Alerts	New	Acknowledged	Closed
Sev 0	0	0	0	0
Sev 1	4 <div></div>	4	0	0
Sev 2	1 <div></div>	1	0	0
Sev 3	0	0	0	0
Sev 4	0	0	0	0

Workspace Data Sources

-  Virtual machines
-  Storage accounts logs
-  Azure Activity log
-  Scope Configurations (Preview)



Related Resources

-  Automation Account

Monitoring

-  Alerts

Support + troubleshooting

-  Resource health
-  New support request

With an Azure Automation Account, you get...

500 free minutes per month
Then, € 0,002/minute



Summary

- Plan your scripts/functions
- Deploy
- Test it with a demo tenant
- Learn developing for the cloud...
- Redeploy
- Service the solution



More about Azure Automation Accounts...

- Some samples
<https://github.com/tonipohl>
- Create a standalone Azure Automation account
<https://docs.microsoft.com/en-us/azure/automation/automation-create-standalone-account>
- Ignite 2019: BRK3178 - Azure automation for managing servers across your environment
<https://myignite.techcommunity.microsoft.com/sessions/81586?source=sessions>
- How to configure Azure Automation Visual Studio Code Extension
<https://kaidojarvemets.com/how-to-configure-azure-automation-visual-studio-code-extension/>
<https://docs.microsoft.com/en-us/azure/active-directory/develop/howto-create-service-principal-portal>
- Use Log Analytics workspace
<https://docs.microsoft.com/en-us/azure/automation/automation-manage-send-joblogs-log-analytics>
- Forward job status and job streams from Automation to Azure Monitor logs
<https://docs.microsoft.com/en-us/azure/automation/how-to/region-mappings>
- Onboard Update Management, Change Tracking, and Inventory solutions
<https://docs.microsoft.com/en-us/azure/automation/automation-onboard-solutions-from-automation-account>
- Send an email when a runbook job fails or suspends
<https://docs.microsoft.com/en-us/azure/automation/automation-manage-send-joblogs-log-analytics#send-an-email-when-a-runbook-job-fails-or-suspends>

Hope, you like Azure Automation Accounts...

Thank you!

Toni Pohl, @atwork

