# Lab 07 – Automating Power BI Administration

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| Let’s run through a few scenarios you  could use Power BI CMDLETS  **How do I find all the datasets that use a specific data source?**   1. Run **Windows PowerShell** as Administrator. 2. Using command:   *Install-Module -Name MicrosoftPowerBIMgmt*  to Install the module.   1. Enter the commands from **Find dataset-owner.ps1** (file in scripts folder) The script is looking for the following: **Datasource Type: sql**   **Server: sqldb01 Database: sales.**  Please change it based on your use case. | Login-PowerBI  $datasetIds = Get-PowerBIDataset -Scope Organization | Foreach {$dsId = $\_.Id; Get- PowerBIDatasource -DatasetId $dsId -Scope Organization | Where-Object  {$\_.DatasourceType -eq 'Sql' -and ($\_.ConnectionDetails.Server -like 'sqldb01' -and  $\_.ConnectionDetails.Database -like 'sales')} | Foreach { $dsId }}  $reports = $datasetIds | Foreach { Get-PowerBIReport -Filter "datasetId eq '$\_'" -Scope Organization }  $owners = $datasetIds | Foreach { Get-PowerBIDataset -Id $\_ -Scope Organization } | foreach { $\_.ConfiguredBy } |
| **How do I recover deleted workspaces?**  15. Enter the commands from **Workspace Management.ps1** (file in scripts folder) in PowerShell window.  **Note**: This works with the **new improved workspaces**. Unfortunately, it does not work with O365 group-based workspaces. | $login = Login-PowerBI  ## Filter for deleted workspaces that can be recovered (i.e. v2 workspaces only)  $deletedWorkspaces = Get-PowerBIWorkspace -Deleted -Scope Organization -Filter "type eq 'Workspace'"  ## Recover the first one by assigning it to the current (admin) user.  $newName = 'Restored Workspace'  Restore-PowerBIWorkspace -Scope Organization -Id $deletedWorkspaces[0].id - RestoredName $newName -AdminUserPrincipalName $login.UserName |
| **I need to add a list of users to Azure AD. Is there an easy way to do this?**  16. Enter the commands from **Add-users- loop.ps1** (file in scripts folder) in PowerShell window.  **Note**: You can read list of usernames from a file and use similar logic to add users. | ## Requires the Azure AD 2.0 cmdlets ## Install-Module -Name AzureAD  # Set-ExecutionPolicy RemoteSigned  $UserCredential = Get-Credential  Connect-AzureAD -credential $UserCredential  For ($i=1; $i -le 401; $i++) {  $PasswordProfile = New-Object -TypeName Microsoft.Open.AzureAD.Model.PasswordProfile  $PasswordProfile.Password = "P@ssw0rd"  $displayName = "Ready User" + $i  $upn = "readyuser" + $i + "@msreadydemo.onmicrosoft.com" |

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|  | $mb = "readyuser" + $i  New-AzureADUser -DisplayName $displayName -PasswordProfile $PasswordProfile - UserPrincipalName $upn -AccountEnabled $true -MailNickName $mb -UsageLocation "US"  } |
| **I want to get gateway information, status of gateway, gateways in a cluster, etc.**  17. Enter the commands from **Gateways.ps1** (file in scripts folder) in PowerShell window.  **Note**: **OnPremisesDataGatewayMgmt**  module is in pre-release. | # Install the On-Premises Data Gateway PowerShell module # This requires pre-release currently  #  # Install-Module -Name OnPremisesDataGatewayMgmt -AllowPrerelease # Cluster ID: f16c0ea9-c0af-418e-aab2-59f44e07c42b  Login-OnPremisesDataGateway -EmailAddress ["a](mailto:asaxton@guyinacube.com)s[axton@guyinacube.com"](mailto:asaxton@guyinacube.com)  # Get a list of clusters  Get-OnPremisesDataGatewayClusters  # Get a list of gateways for a given cluster Get-OnPremisesDataGatewayClusterInfo  # Get the status of gateways  Get-OnPremisesDataGatewayStatus |
| **My PowerShell script is throwing an error and I am not able to figure out the cause.**  18. Enter the commands from **Resolve Power BI.ps1** (file in scripts folder) in PowerShell window.  This script is looking for an invalid Workspace and **Resolve\_PowerBIError** cmdlet is used to detailed error message. | Login-PowerBI  ## Try with a bad id to produce an error  $badId = 'not a guid'  Get-PowerBIWorkspace -Id $badId -Scope Organization Resolve-PowerBIError -Last |

There are more scripts in the Scripts folder. Feel free to review and customize it to your needs.