

# Graph API Handling via PowerShell

Requirements: An App Registration with the appropriate permissions and a ClientSecret.

## Graph API Authentication

First, the authentication header must be compiled in the script. With this header (here the variable \$Header) the authentication at the Graph API can be executed. The top three variables now contain the values, which were compiled in an upper point.

```
$TenantID = "<tenantid>"
$ClientId = "<cliendid>"
$ClientSecret = "<clientsecret>"

$Body = @{
    "tenant" = $TenantId
    "client_id" = $ClientId
    "scope" = "https://graph.microsoft.com/.default"
    "client_secret" = $ClientSecret
    "grant_type" = "client_credentials"
}

$Params = @{
    "Uri" = "https://login.microsoftonline.com/$TenantId/oauth2/v2.0/token"
    "Method" = "Post"
    "Body" = $Body
    "ContentType" = "application/x-www-form-urlencoded"
}

$Global:MicrosoftEntraIDAccessToken = (Invoke-RestMethod @Params).access_token
```

# Graph API Resources - Getting Information

This is a simple example query to get information. This only reads out. By the method "GET" this can be recognized on the second line.

```
$Email = "<youremailaddress>"  
$User = Invoke-RestMethod -Method GET -Uri "https://graph.microsoft.com/v1.0/users/$Email" -ContentType  
"Application/Json" -Header @{Authorization = "Bearer $Global:MicrosoftEntraIDAccessToken" }
```

The following is the output from the \$User variable, which has been populated in the top line with information from the Graph API.

```
@odata.context : https://graph.microsoft.com/v1.0/$metadata#users/$entity  
businessPhones : <yourbusinessphones>  
displayName    : <yourdisplayname>  
givenName      : <yourforename>  
jobTitle       : <yourjobtitle>  
mail           : <youremailaddress>  
mobilePhone    : <yourmobilephonenumber>  
officeLocation : <yourofficelocation>  
preferredLanguage : <yourpreferredlanguage>  
surname        : <yoursurname>  
userPrincipalName : <yourupn>  
id             : <youruserid>
```

# Graph API Resources - Create information

In the following example, an entity is created via the Graph API in Intune. Here, the necessary information is now also transmitted, using JSON Body.

```
$KGTAG = "TST"  
$ScopeTagProdName = "SCT-INT-$KGTAG-INTUNE-KGObjects-PROD"  
$ScopeTagProdBody = @"  
{  
  "displayName": "$ScopeTagProdName",
```

```
"description":"ScopeTag for Company $KGTAG"
}
"@
$global:ScopeTagProd = Invoke-RestMethod -Method POST -Uri
"https://graph.microsoft.com/beta/deviceManagement/roleScopeTags" -ContentType "Application/Json" -Header
@{Authorization = "Bearer $Global:MicrosoftEntraIDAccessToken" } -body $ScopeTagProdBody
```

\$global:ScopeTagProd is a global variable which has been populated with the return of the graph query above. The content of the variable is as follows:

id	displayName	description	isBuiltIn
45 SCT-INT-TST-INTUNE-KGObjects-PROD	ScopeTag for Company TST		False

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