

PowerShell and MS Graph API

Advanced, from Zero to Hero

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April 8-11, 2024

Michael Seidl



- Microsoft MVP (since 2015)
- Automation Consultant (10+ Years)
- Founder, CEO | au2mator
 - Self-Service Portal for Microsoft Automation
- Blog
 - www.techguy.at | www.au2mator.com
- GitHub
 - github/seidlm | github/au2mator
- LinkedIn/SeidlM







Austria
**No kangaroos -
only kuhlimuhs**

#weareaustria

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AGENDA



✓ INTRO

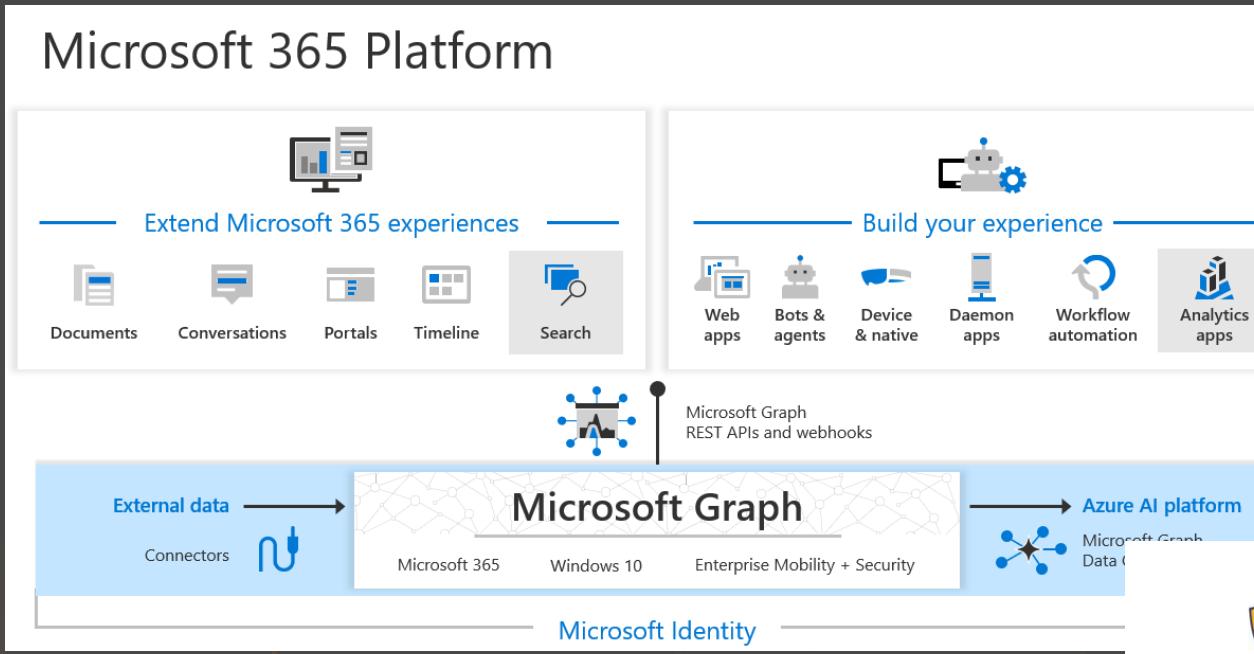
- GRAPH API BASICS AND AUTHENTICATION
- PAGING
- FILTER / SEARCH
- SELECT
- BATCH
- END

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ONE API to the Cloud

Microsoft 365 Platform



WHY use MS Graph API



- ✓ No PowerShell Module
- ✓ OnPrem/Cloud
- ✓ More Functionality over PS-Module (delay)
- ✓ Easy language
- ✓ Unlimited Platforms
- ✓ One API to all Cloud Services (Future)



HOW to use MS Graph API



- REST Call, HTTPS, WEB URL
- <https://graph.microsoft.com/v1.0/>
 - Users | Groups | Teams | ToDo | Azure App ...
 - GET, POST, PUT, PATCH, DELETE
- Graph Explorer
- JSON



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HOW to Authenticate



- ✓ Azure APP Registration
- ✓ Client Secret or Certificate
- ✓ Delegate or Application Permission
- ✓ System / User - Assigned Identity



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HOW to Authenticate



Delegate

- Signed In User
- Effective permission
- User/Admin Consent



Application

- No User
- App Permissions only
- Admin Consent only

TIME to be a GRAPH API HERO

- ✓ INTRO
- ✓ GRAPH API BASICS AND AUTHENTICATION
 - PAGING
 - FILTER / SEARCH
 - SELECT
 - BATCH
 - END

PAGING



- Subset of Result
- Performance and Load
- Implement Paging from the Beginning



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PAGING



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FILTER & SEARCH



- FILTER or SEARCH
- SEARCH only for some Endpoints
 - Endpoints
 - Outlook: Mail or Event
 - SharePoint, OneDrive: driveitem, list, site, drive..
 - Person: mainly User Object
 - Graph Connector Content
 - Admin Search
 - More Properties at once
- FILTER
 - Know the property
 - All Endpoints

FILTER & SEARCH



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SELECT



- Get what you want and need
- Performance and Load
- Additional Properties



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- Superpower of Performance, Read and Write
- Buy 1, get 20
 - Combine 20 Requests in a single Call
- Sequence
- Throttling and Limits

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END is Near

- Examples on GitHub
github.com/SeidlM/Events
- Q&A
- Contact
LinkedIn/in/seidl-m



Michael Seidl

IT Process Automation Expert | define, automate,
and delegate your IT Processes with Microsoft Au...



THANK YOU

Please review this session



Session Review

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PATCH MY PC



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Data ON®



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