



Leverage Power BI automation using API and Power Automate

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Power BI Gebruikersdag 2022

#pbig2022



Met dank aan onze partners

Platinum partners

The logo for ilionx, with 'ilion' in blue and 'x' in red.The logo for Dynamic People, featuring a stylized red 'D' icon followed by the text 'Dynamic People' in red.The logo for Motion 10, with 'Motion' in black and '10' in purple.

Gold partners

The logo for VALID, with 'VALID' in blue and 'STAY AHEAD' in smaller blue text below it.The logo for KASPAROV FINANCE & BI, with the text in orange.The logo for Nova Silva, featuring a blue dot matrix icon followed by the text 'Nova Silva' in blue.The logo for TIME XTENDER, with 'TIME' in grey, 'X' in orange, and 'TENDER' in grey.The logo for GET RESPONSIVE, with the text in black on a yellow background.

Met dank aan onze partners

Silver partners



Community partners



Speaker info

Andrea Martorana Tusa

- Italian living in Denmark
- MVP Data Platform
- BI Front-end engineer by **PANDORA**
- Speaker at many events worldwide
- 20+ years of experience in the world of data

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Agenda

- Power BI API
- How to use the PBI API with Power Automate
- Demo, demo, demo, ...



Power BI API

Provides service endpoints for embedding, administration and user operations

- Admin
- Dashboards
- Datasets
- Gateways
- Groups
- Users
-

<https://docs.microsoft.com/en-us/rest/api/power-bi/>

Power BI REST APIs

07/25/2019 • 2 minutes to read • 📄 🗨️ 👤 👥

Power BI REST API provides service endpoints for embedding, administration, and user resources.

REST Operation groups

Operation group	Description
Admin	Operations for working with administrative tasks.
Apps	Operations for working with Apps.
Available Features	Operations that return available features.
Capacities	Operations for working with capacities.
Dashboards	Operations for working with dashboards.
Dataflow Storage Accounts	Operations for working with dataflow storage accounts.
Dataflows	Operations for working with dataflows.



What can be done with APIs?

- **Automation:** automate manual operations at dataset, table, row groups level
- **Embedding:** Embed dashboards, reports and tiles into a custom app
- **Admin:** get a list of objects for auditing, maintenance, troubleshooting, cleaning, ...
- **Reporting:** query your tenant and get reporting metrics
- **Real time streaming**



Addressing the API

GET <https://api.powerbi.com/v1.0/myorg/reports/5b218778-e7a5-4d73-8187-f10824047715>

JSON response object

```
{  
  "datasetId": "cfafbeb1-8037-4d0c-896e-a46fb27ff229",  
  "id": "5b218778-e7a5-4d73-8187-f10824047715",  
  "name": "SalesMarketing",  
  "webUrl": "https://app.powerbi.com//reports/5b218778-e7a5-4d73-8187-f10824047715",  
  "embedUrl": "https://app.powerbi.com/reportEmbed?reportId=5b218778-e7a5-4d73-8187-f10824047715"  
}
```



Test the API

```
HTTP Copy Try It  
  
GET https://api.powerbi.com/v1.0/myorg/gateways
```

Request URL
GET https://api.powerbi.com/v1.0/myorg/admin/datasets

Parameters
name value +

Headers
name value +

Request Preview
HTTP Copy
GET https://api.powerbi.com/v1.0/myorg/admin/datasets
Authorization: Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiIsIng1dCI6ImFY3R3X29kd1Jpb0V0ZzNlb095SWhgdG1FcyIsImtpZCI6ImFY3R3X2I...

Run

Response Code: 200

Headers

```
HTTP Copy  
  
cache-control: no-store, must-revalidate, no-cache  
content-length: 137  
content-type: application/json; odata.metadata=minimal  
pragma: no-cache  
requestid: 0e13ac15-8c7f-4969-bb94-5ab038cad247
```

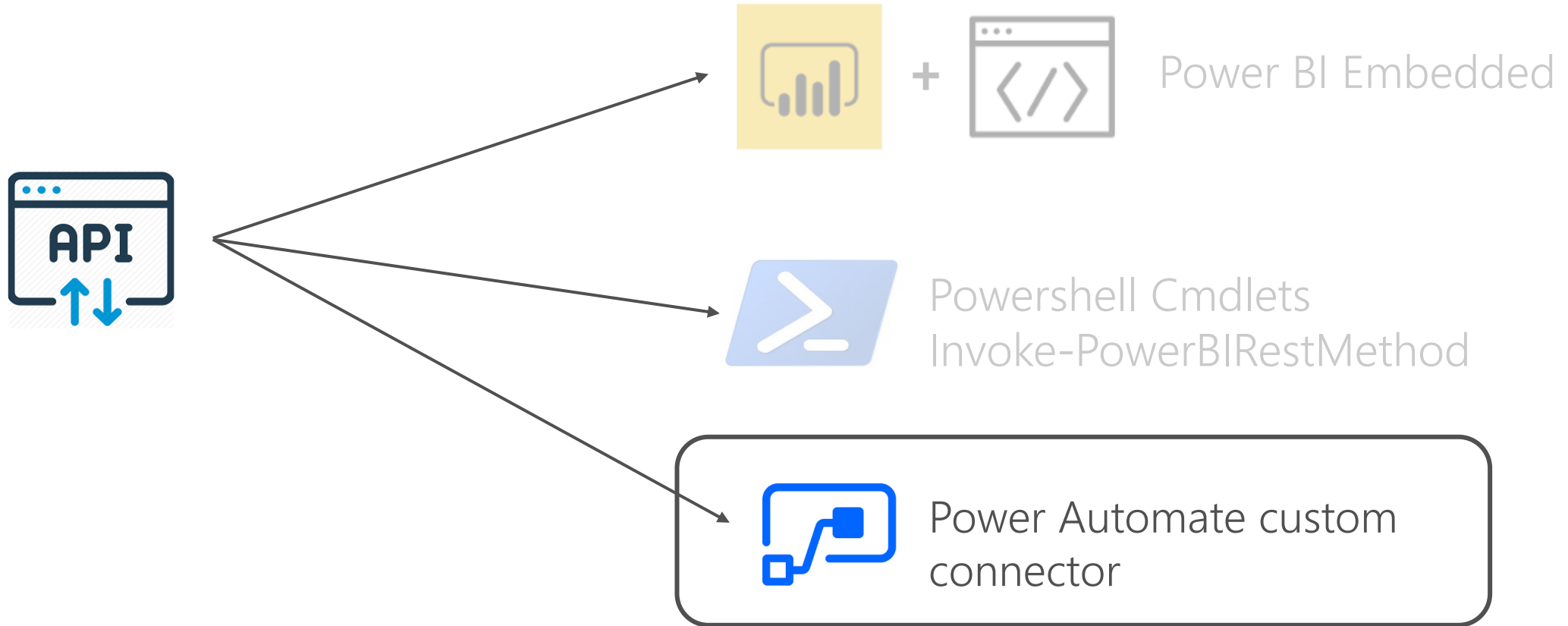
Body

```
JSON Copy  
  
{  
  "@odata.context": "http://wabi-europe-north-b-redirect.analysis.windows.net/v1.0/myorg/$metadata#gateways",  
  "value": []  
}
```




<https://docs.microsoft.com/en-us/rest/api/power-bi/>



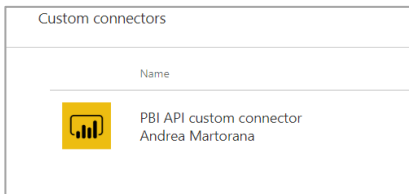
How to use the API



Power Automate and the API

Display name : Power BI Automation API
Application (client) ID : 
Directory (tenant) ID : 
Object ID : 

1) Start from an app already registered or register a new one



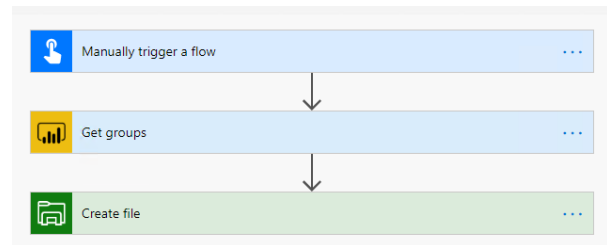
2) Create a custom connector in Power Automate

Actions (5)

Actions determine the operations that users can perform. Actions can be used to read, create, update or delete resources in the underlying connector.

- 1 GetGroupsAs...
 - 2 GetReports
 - 3 GetGateways
 - 4 GetReportsInG...
 - 5 GetGroups
- + New action

3) Add actions to the connector



4) Create a flow with triggers, approval, conditions, actions



App registration in Azure

For using APIs with Power Automate and in embedded mode, an Azure web app must be registered.



Developer

1) Sign in dev.powerbi.com/apps



Developer

2) Register an **Azure App**

API access

Select the APIs

[Learn more](#)

3) Grant permissions



Select all

4) Receive **Application ID** and **Application Secret** to be used in your app

Your app



5) Embed API in applications





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Bedankt!
Thank you!

Vul alsjeblieft
de evaluatie in



Please fill in
the evaluation

