

The image shows three overlapping screenshots from the Power BI Desktop interface:

- Top Screenshot:** The 'Datasets' tab is active. A table with one row 'Parameterize Datasource' is shown. The 'ACTIONS' column has a dropdown menu open, showing 'Settings', 'Rename', 'Delete', and 'More options'. A hand cursor is pointing at 'More options'.
- Bottom Left Screenshot:** The 'Filter Rows' dialog box is open. It shows 'Show rows where: Country' with a filter set to 'equals'. Below this, there are radio buttons for 'And' (selected) and 'Or'. A second filter field is empty. A dropdown menu is open for the second filter, showing 'Country' (selected), 'Text', and 'Parameter'. 'OK' and 'Cancel' buttons are at the bottom.
- Bottom Right Screenshot:** The 'Parameters' pane is open. It shows a list of parameters on the left with 'Country' selected. On the right, the configuration for 'Country' is shown: Name 'Country', Description 'Customer country to filter by in our report.', Required checkbox checked, Type 'Text', Allowed Values 'List of values', a table with values 'Spain', 'Germany', 'France', 'Canada', and an asterisk, Default Value 'Spain', and Current Value 'Spain'. 'OK' and 'Cancel' buttons are at the bottom.

Use parameters

To add extra flexibility to your Power BI content





Marc Lelijveld

Data & AI consultant
Macaw Netherlands



Marc.Lelijveld@outlook.com



[@MarcLelijveld](https://twitter.com/MarcLelijveld)



linkedin.com/in/MarcLelijveld



Data-Marc.com

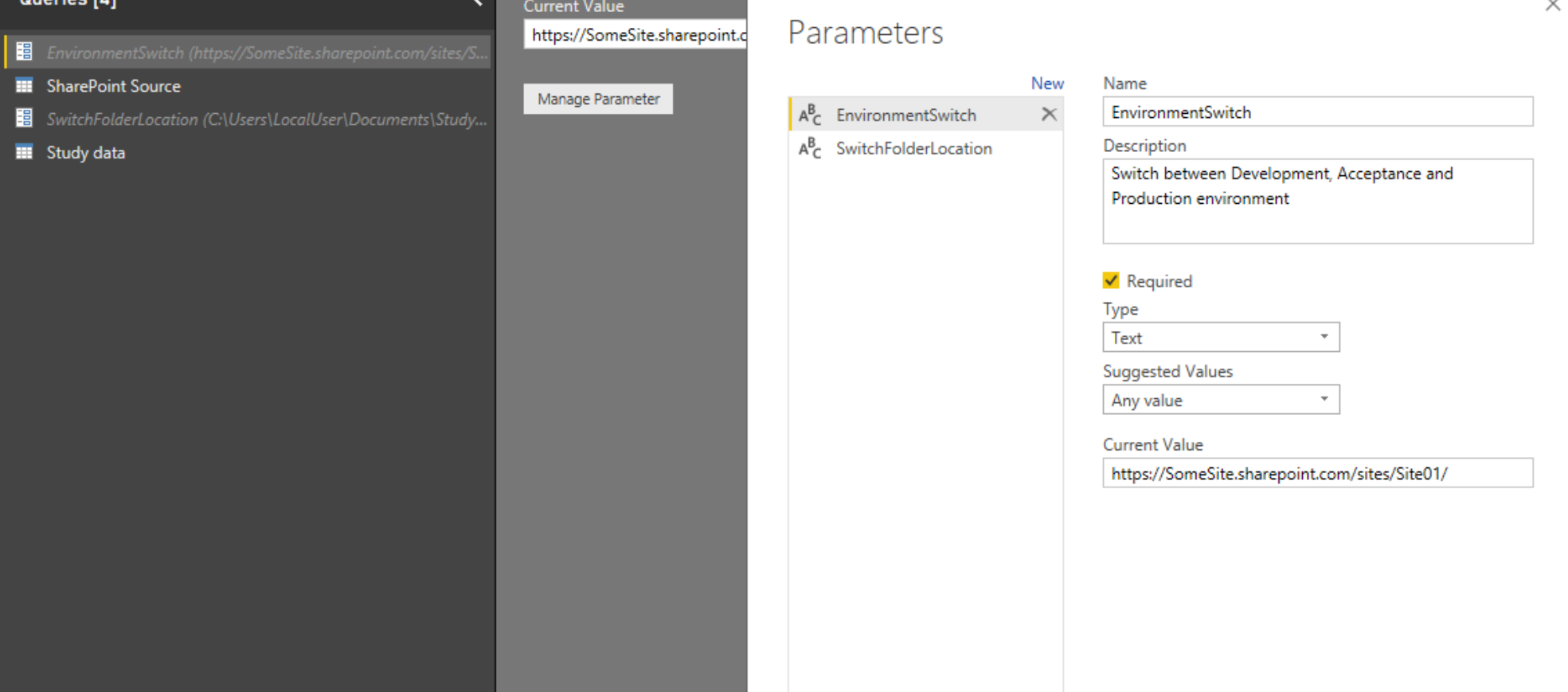


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Agenda

- Apply parameters to your DTAP pipeline
- Optimize report building
- Building a date dimension
- Parameters in the Power BI Service
- Create templates
- What If parameters





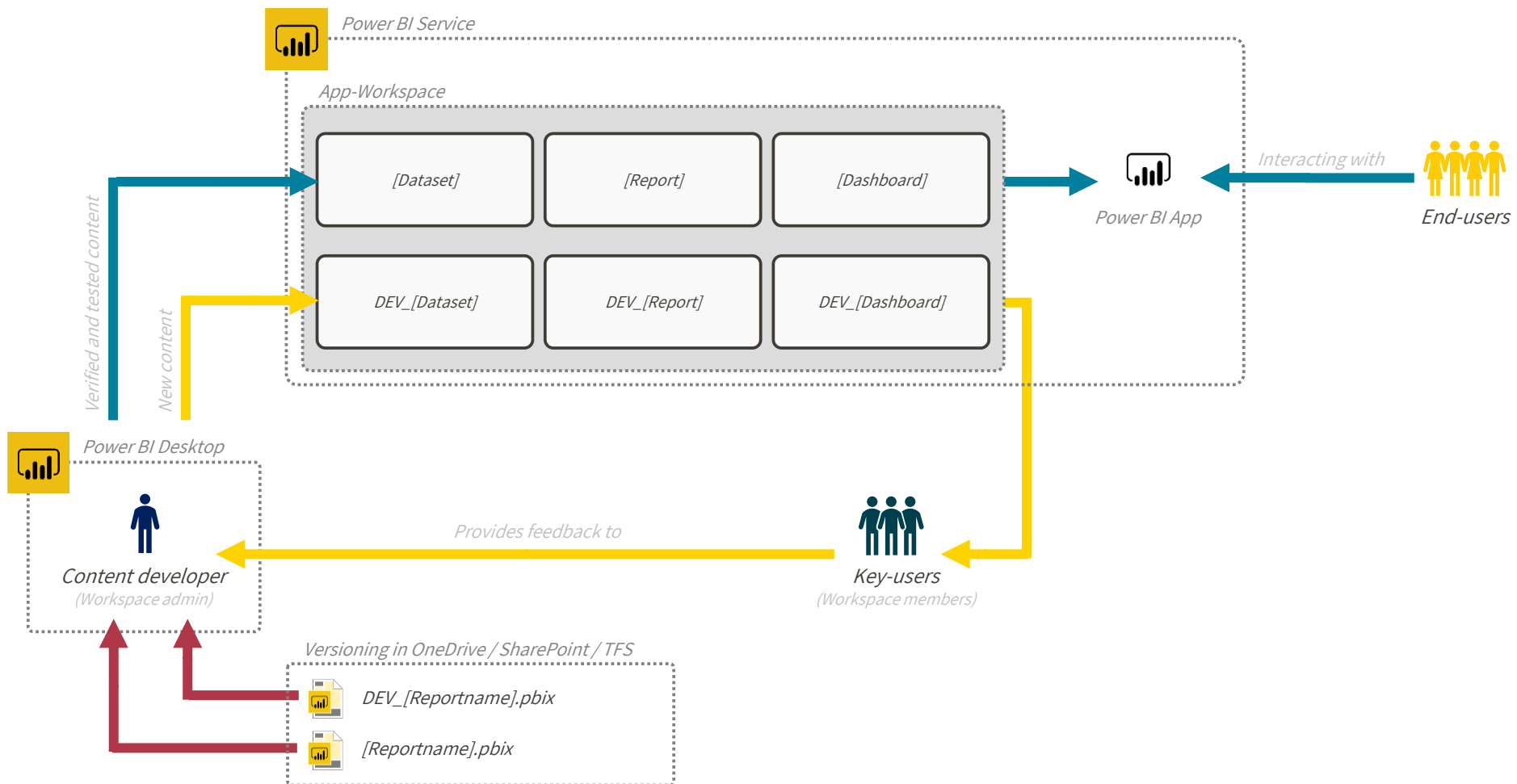
Apply parameters to your DTAP pipeline



DTAP



Power BI Deployment



Parameter settings

Desktop

Parameters

New

EnvironmentSwitch

Name: EnvironmentSwitch

Description: Switch between Development, Acceptance and Production environment.

☒ Required

Type: Text

Suggested Values: List of values

1	https://
2	https://
3	https://
*	

Default Value: https://

Current Value: https://

OK Cancel

Service

Settings for Parameterize Datasource

[Refresh history](#)

Gateway connection

Data source credentials

Parameters

EnvironmentSwitch

Switch between Development, Acceptance and Production environment

https://SomeSite.sharepoint.com/sites/Site01/

SwitchFolderLocation

Switchs folders

C:\Users\MarcL\Documents\Study.xlsx

Apply Discard

Scheduled refresh

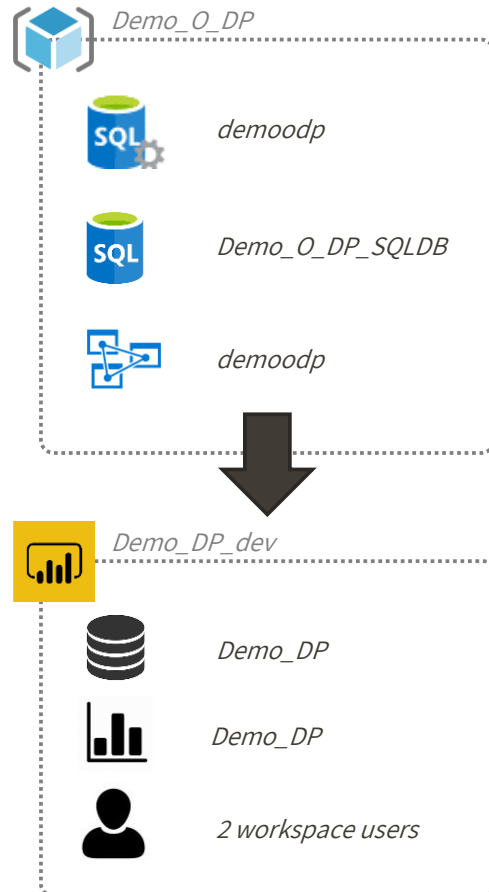
Q&A and Cortana

Featured Q&A questions

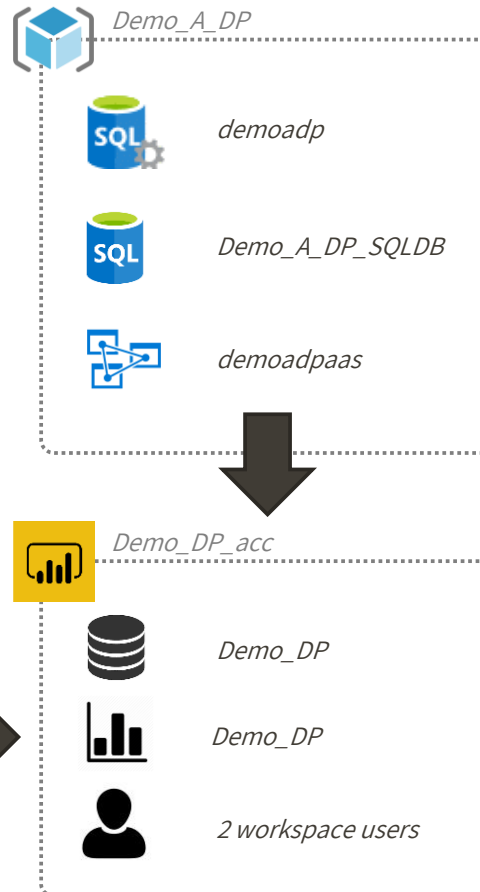


Demo context

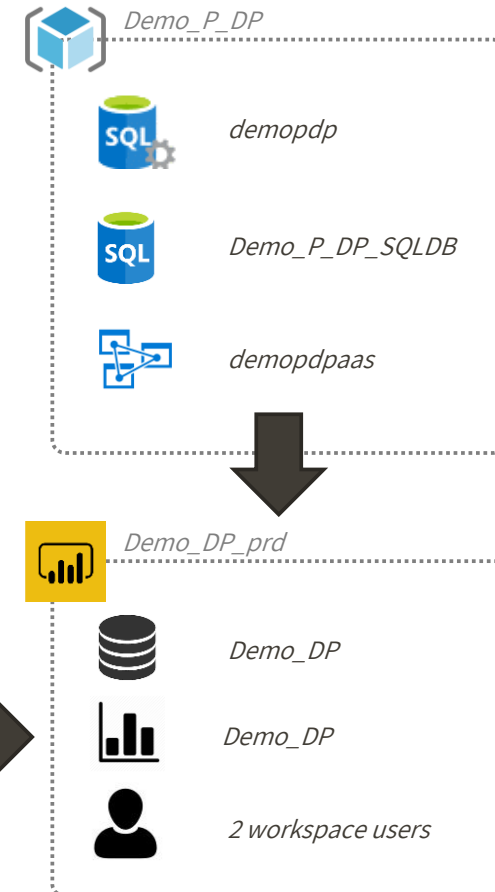
Development



Acceptance



Production



DEMO

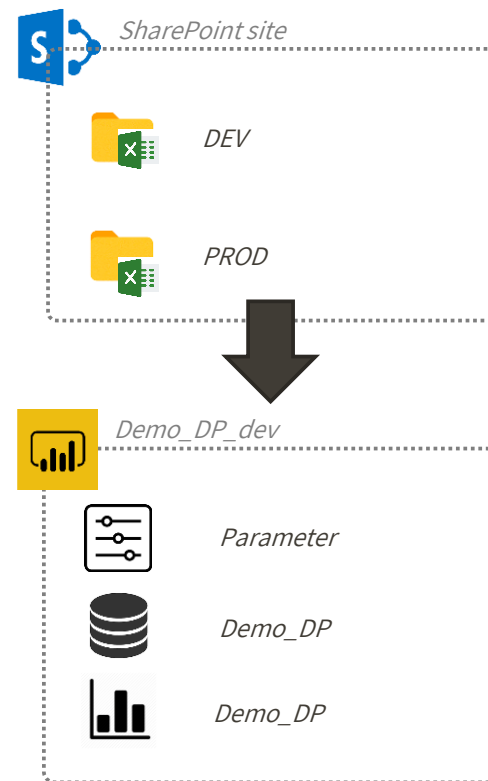
Change data source connection string



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Switch Folders



DEMO

Change folder



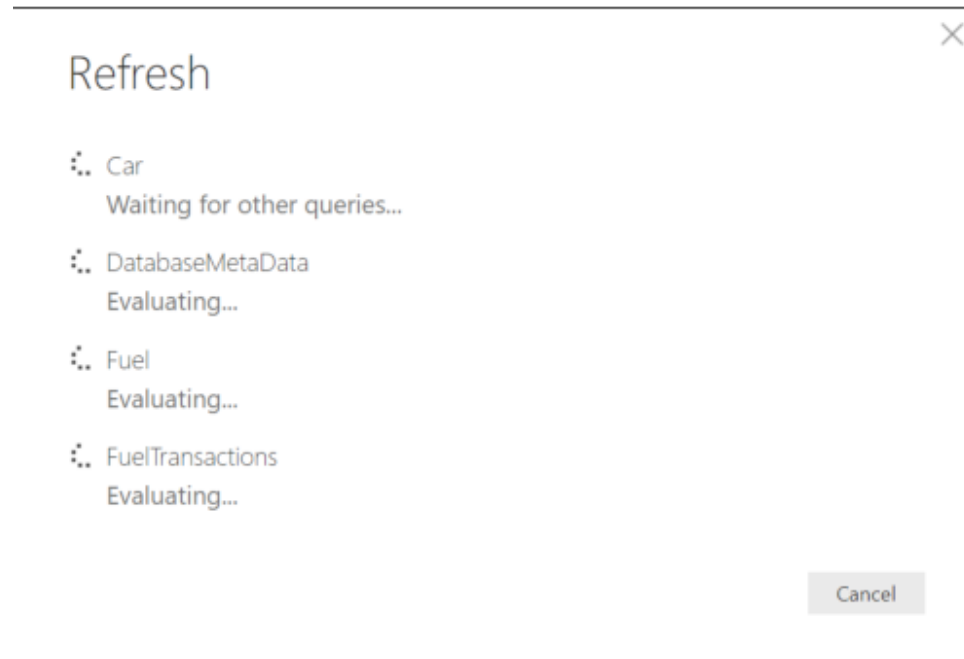
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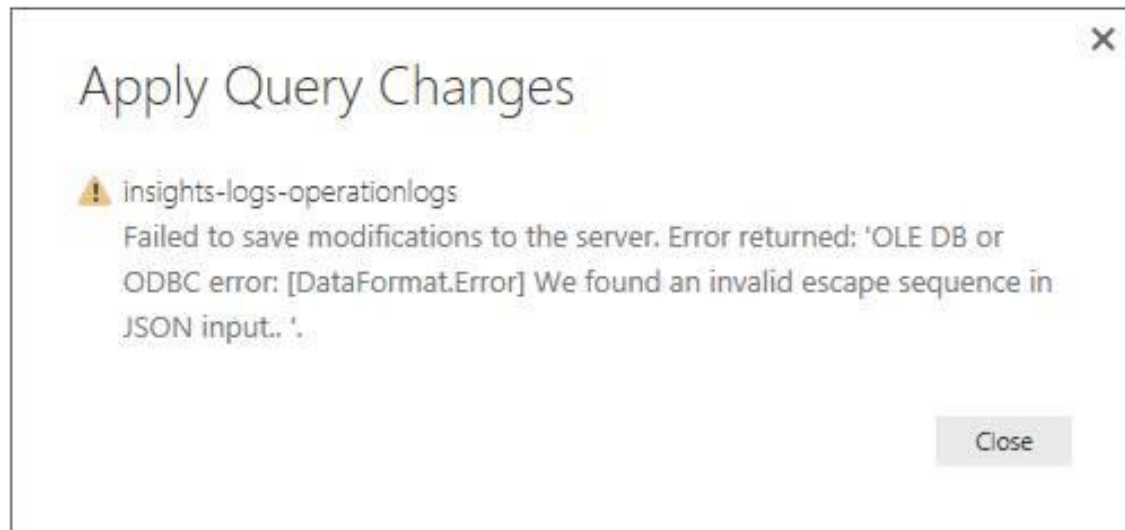
Optimize Report Building



Big loads of data!



Big loads of data!



Working on it...

⋮ This shouldn't take long.



Query folding



Generate SQL queries



Push queries back to
the source



Improve performance
in Power Query



Query folding – supported sources

- Relational data sources (SQL Server, Oracle...)
- OData sources (SharePoint lists...)
- Active Directory
- Exchange
- ...



Query folding – supported operations

- Filtering (both rows and columns)
- Joins
- Aggregation (Group By)
- Pivot and Unpivot
- Numeric Calculations
- Simple transformations (Uppercase / Lowercase)



DEMO

Apply top N rows



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Building a date dimension

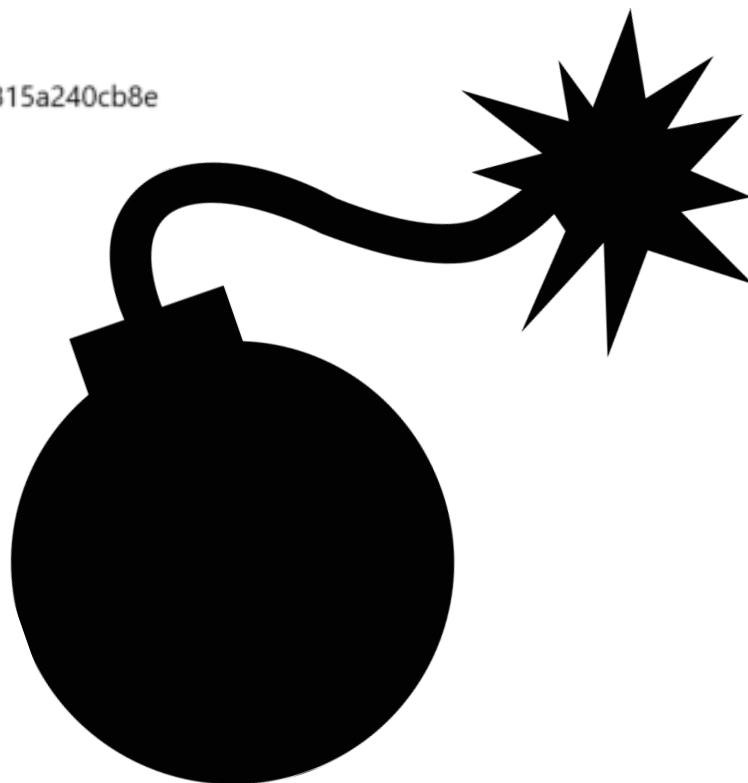
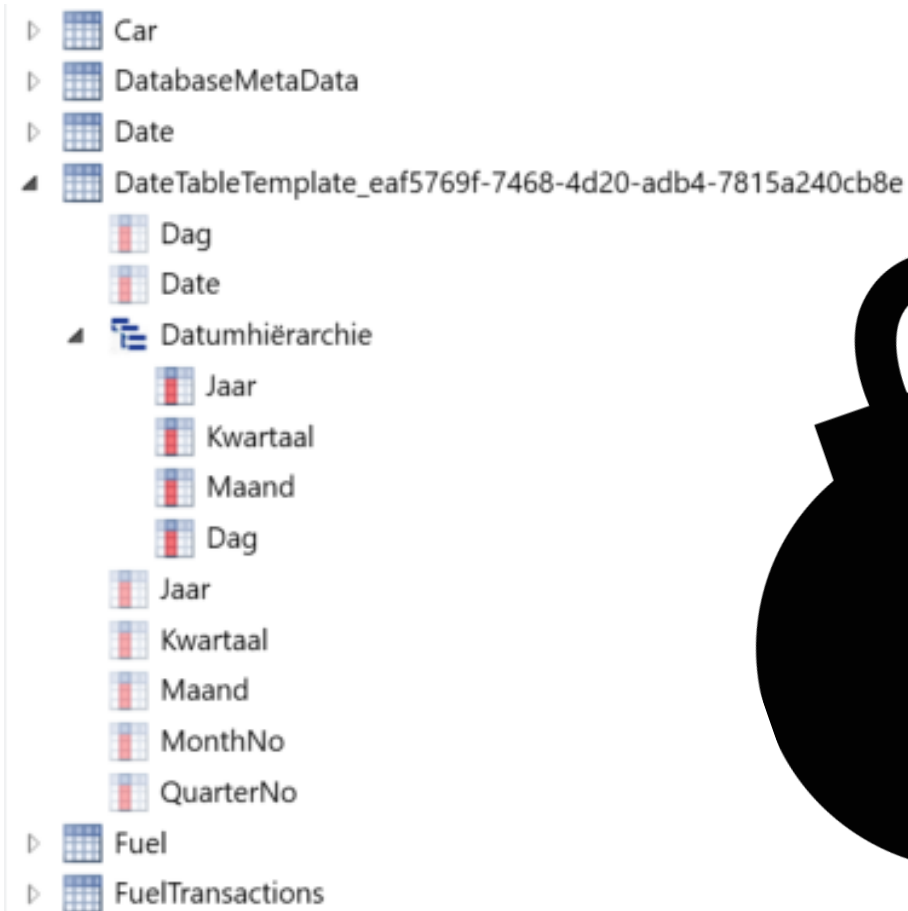


Why build a date dimension

- Filter all attributes in all tables at one time
- Consistency
- Additional information (day of week, public holiday)
- Time Intelligence Calculations (YTD, PYTD, MTD)



Default build-in date dimension



**Blow up your
data model!**



DEMO

Building a flexible date dimension



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DEMO

Parameters in the Power BI service




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Power BI REST API

Sample Request


HTTP

 Copy

POST <https://api.powerbi.com/v1.0/myorg/datasets/cfafbeb1-8037-4d0c-896e-a46fb27ff229/Default.UpdateParameters>

Request Body

JSON

 Copy

```
{
  "updateDetails": [
    {
      "name": "DatabaseName",
      "newValue": "NewDB"
    },
    {
      "name": "MaxId",
      "newValue": "5678"
    }
  ]
}
```

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

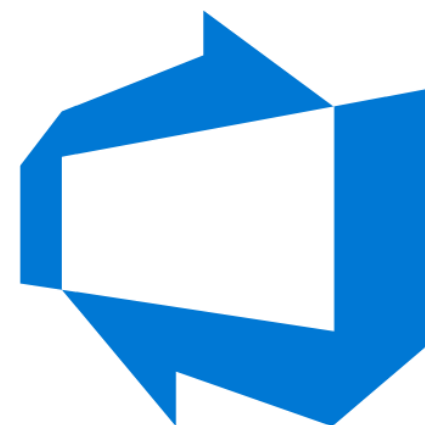


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Power BI cmdlets

```
25 function Update-DatasetParameter {
26     [CmdletBinding(DefaultParameterSetName='MyWorkspace')]
27     Param (
28         # GroupId help description
29         [Parameter(Mandatory=$true, ParameterSetName='SpecifiedWorkspace')]
30         [ValidateNotNullOrEmpty()]
31         [String]
32         $GroupId,
33
34         # DatasetKey help description
35         [Parameter(Mandatory=$true, ValueFromPipeline=$true, ParameterSetName='MyWorkspace')]
36         [Parameter(Mandatory=$true, ValueFromPipeline=$true, ParameterSetName='SpecifiedWorkspace')]
37         [ValidateNotNullOrEmpty()]
38         [String]
39         $DatasetKey,
40
41         # UpdateDetails help description
42         [Parameter(Mandatory=$true, ParameterSetName='MyWorkspace')]
43         [Parameter(Mandatory=$true, ParameterSetName='SpecifiedWorkspace')]
44         [ValidateNotNullOrEmpty()]
45         [Object]
46         $InputObject
47     )
48
49     begin {
50     }
51
52     process {
53
54         if ($InputObject -isnot [string]) {
55             $InputObject = ConvertTo-Json -InputObject $InputObject -Depth 100
56         }
57
58         if ($PSCmdlet.ParameterSetName -eq 'MyWorkspace') {
59             $path = '/v1.0/myorg/datasets/{0}/Default.UpdateParameters' -f $DatasetKey
60         } else {
61             $path = '/v1.0/myorg/groups/{0}/datasets/{1}/Default.UpdateParameters' -f $GroupId, $DatasetKey
62         }
63         Invoke-Api -Path $path -Method Post -Body $InputObject
64     }
65
66     end {
67     }
68 }
```



Azure DevOps

<https://www.powershellgallery.com/packages/Microsoft.PowerBI.PowerShell/1.0/Content/Microsoft.PowerBI.PowerShell.psm1>



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Creating templates



Why you should care about templates



Add your corporate
identity team file



Makes support easier



Kick-start new projects



DEMO

Generate your own template file



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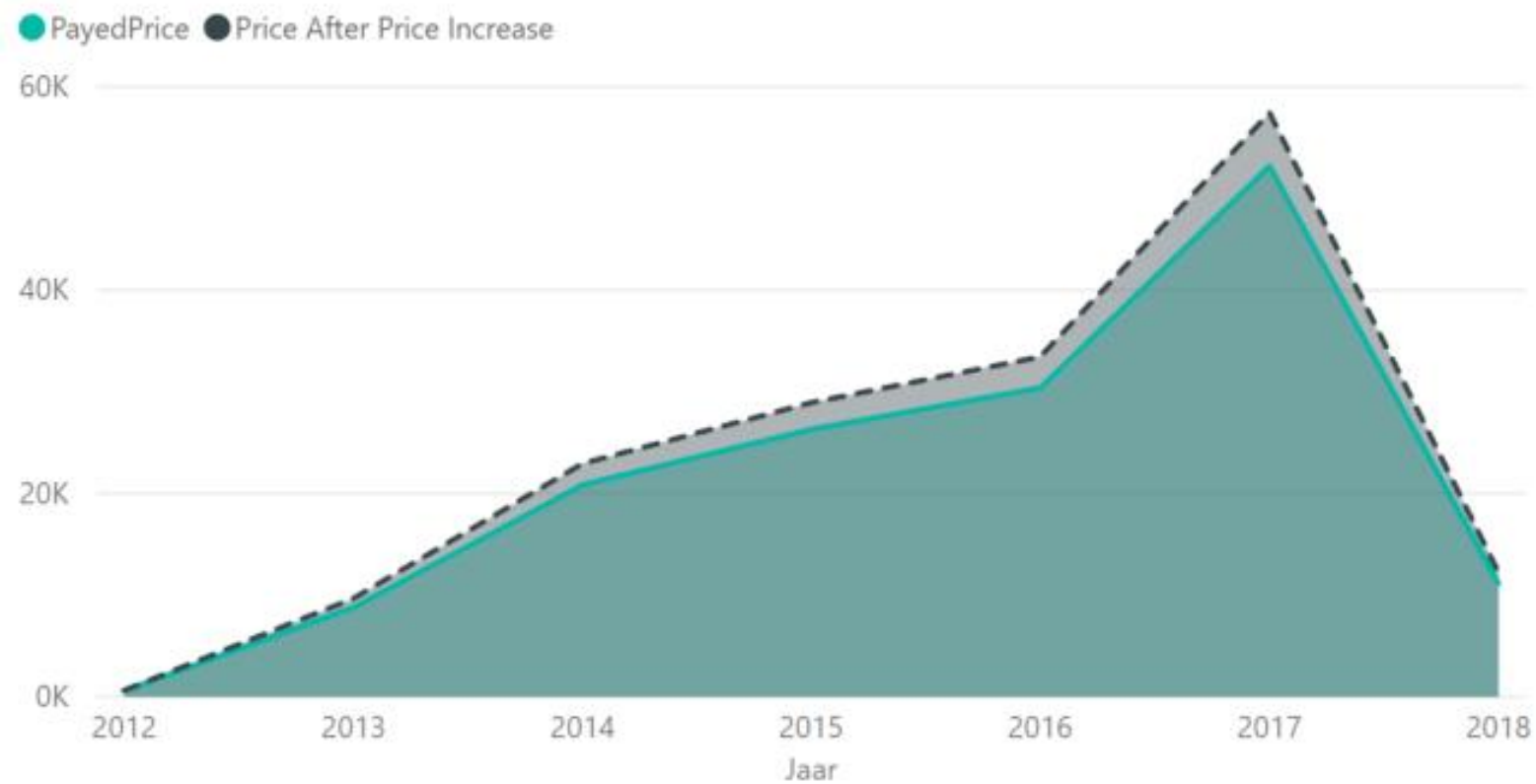
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What if parameters



What if...?

PayedPrice and Price After Price Increase by Jaar



DEMO

What if the price increased 10%?



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Wrap up

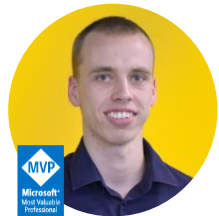
LET'S
RECAP...

Parameters...

- ...makes it easier to move through your DTAP pipeline.
- ...improves the development performance and experience.
- ...are still changeable after publishing.
- ...easy to use for creating templates.
- ...add extra flexibility for explorative reporting.

Download for free!

<https://bit.ly/cheatsheetpbi>



Marc Lelijveld

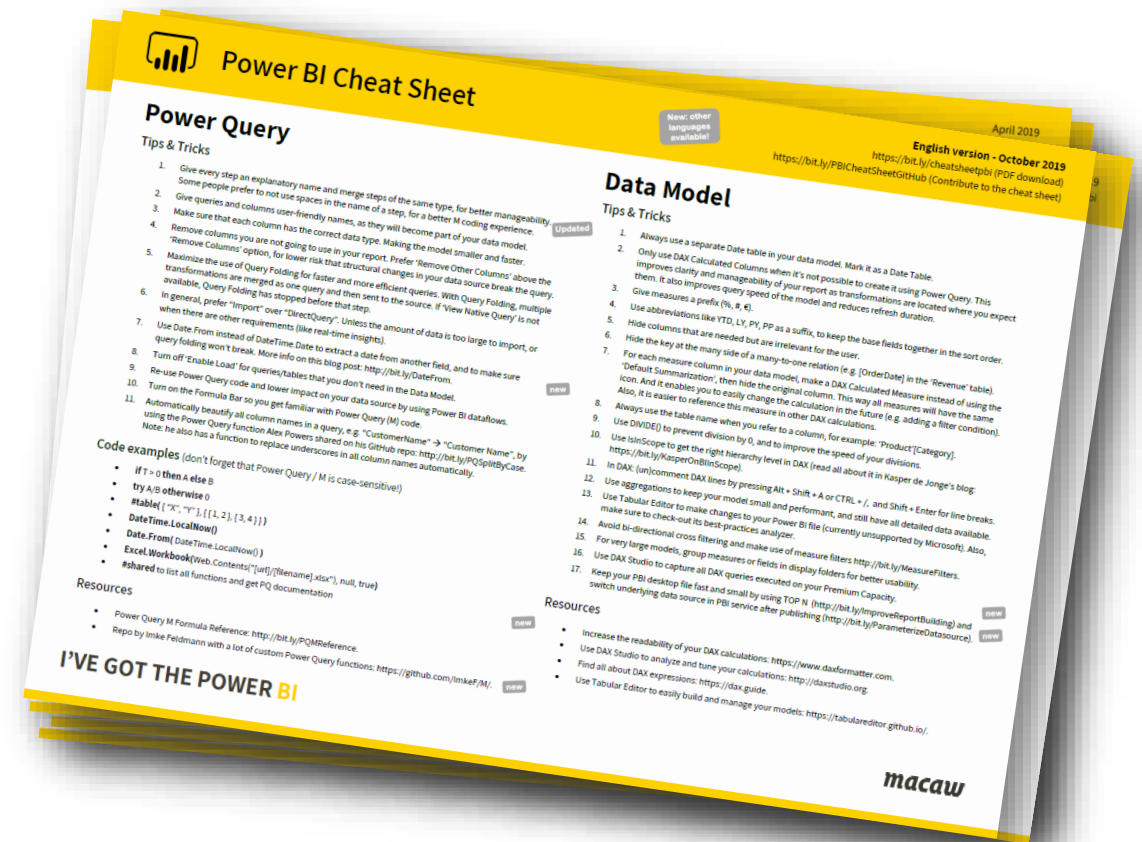
Data & AI consultant
Macaw Netherlands

✉ Marc.Lelijveld@outlook.com

🐦 [@MarcLelijveld](https://twitter.com/MarcLelijveld)

in [linkedin.com/in/MarcLelijveld](https://www.linkedin.com/in/MarcLelijveld)

🌐 Data-Marc.com



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